

Thirty pounds a week? With STUDENT GRANTS again prominently on the agenda, David Jobbins looks at the whole vexed issue of discretionary awards (page 11)

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Tree stump to earmark

Only yesterday it seems the chosen symbol of the relationship between British higher education and the state was the tree stump. The tree stump was where the Treasury left the money before stoically and fastidiously turning on its heels and walking off into the twilight forest - and it was from the tree stump that the universities crept out tentatively before the dawn to collect their share of the money.

The University Grants Committee was a kind of gamekeeper. In the case of polytechnics and colleges it was the other way round: the local authorities left a bill on the stump which the Treasury duly paid. Rather confusingly for metaphorical consistency this bill was called the pool.

Today, and even more tomorrow, the most popular symbol is the earmark. The still of the forest - stumps and pools - has been replaced by the clamour of the herd. Ears are to be tagged and pens prepared. The "new blood" scheme (sorry, a third metaphor) and the information technology initiative are the most recent and prominent examples of this new passion for earmarking. The UGC's promise to exercise greater selectivity in its support of research will need to make use of similar tags. And the demand by Dr Kenneth Miller, director general of the Engineering Council, that money for engineering should be earmarked for a five-year period is likely to be only the first of many similar requests.

Two questions come to mind about this dramatic shift of symbols. First, how did this terrible thing happen? How did we get from the freedom of the forest to the fury of the cattle pen? Second and more seriously, will earmarking work better than leaving money on tree stumps? After all, tree stumps were always something of a myth, resonant about its use and in recent years face-to-face handovers had come to replace dead-letter-box-style switches.

In the same way it may be difficult to translate earmarking from a thrilling, or threatening, symbol into effective practice. The wrong tags may be punched in the wrong ears for the wrong reasons. Sometimes it may be difficult to match the numbers on the tag with the records in the herd book. Tags may be difficult to remove.

The first question is easy to answer. Long ago governments - Conservative or Labour, British or French - believed that the best way to secure the universally desired improvement in science and technology was to expand universities.

More and bigger universities equalled more and bigger Sputniks - or whatever was the reigning idol of high technology. This period in the development of British higher education lasted from 1945 until the middle 1960s and was at its most intense from the

1956 White Paper on technical education until the Robbins report in 1963. It was fuelled by the political, and maybe cultural, capital accumulated by wartime and postwar science - the code breakers of Bletchley and the atom smashers of the Manhattan project, the pioneers of DNA and the urban sociologists of the new Britain.

Then Governments began to lose their solid faith in the expansion of higher education as an unambiguous good. An inch or so of discount grew up. They had paid for better science and technology, but they had been given some science, less technology and a lot of arts and social science. There was also less money to leave on the stump, partly because of the slowdown of the postwar boom, while they were being urged to leave more and more, mainly because the expansion of higher education had vastly increased its cost.

So Governments tried to steer the development of higher education by breaking it up into different sectors - California master plans, British binary policies, French LUTs, and the rest. This crude differentiation by type of institution had two advantages. First it allowed Governments to give more money to one sector and less to another in the hope of favouring or discriminating against the style of higher education which particular sectors allegedly embodied. Second, it allowed them to sponsor alternatives to autonomous universities which would be under, to adopt the British euphemism, greater social control.

This period ended with the Government's refusal to endorse the university-only strategy proposed by Robbins and its decision to establish the polytechnics instead; it has not yet closed, although now there is a suggestive accumulation of disappointment and impatience with this broad brush differentiation by sectors.

Enter earmarking, the third stage in the developing relationship between higher education and the state. Governments are now losing faith in their ability to steer higher education by broad brush differentiation into sectors. The mechanism seems too crude. It is unfair to institutions that do the right things but happen to be in the wrong category, and maybe over-fair to institutions that are lucky enough to be in the right category but may do the wrong things.

The strategy that is now becoming more and more attractive to politicians is much finer grain discrimination on the basis of individual programmes - in simple terms, earmarking. This brings us to the second question: will earmarking work better than leaving money on tree stumps? Clearly the DES thinks it will and the UGC is half-convinced. The National Advisory Body has kept off the issue, mainly because local authorities have a pathological distrust of anything that looks like a specific grant (more specific than

the pool that is). Industry is for it; academics are against it. Engineers favour the plan; sociologists fear it. Indeed the line-up is entirely predictable, except for the half-defection of the UGC. As all the big battalions are on the side of earmarking, any consideration of its merits and drawbacks may seem superfluous. For better or worse earmarking in some form or other is going to play an increasing role in the future funding of British higher education.

"In some form or other" is a crucial qualification. For earmarking can take two main forms, the rhetorical and the specific. In its rhetorical form it can be used by the Government to send powerful messages, or shocks, to the system. A good example is the information technology initiative: its main value is not the specific programme funded but the stimulus provided to information technology across a much wider field of subjects and institutions. If it does not sound too cynical, the success of this particular venture into earmarking does not depend exclusively on whether it identified the real winners.

Earmarking in its specific form presents much greater difficulty. It is one thing to regard earmarking as a rhetorical device which can be successful even if detailed allocations turn out to be mistaken; quite another to regard earmarking as a policy instrument that must be justified by specific results. In the latter case it may turn out to be disappointing. There are two major difficulties. The first is that at times it is based on a mentality that can be described as flat-earth instrumentalism. Throwing money at problems doesn't always solve them. More sensitive and oblique approaches can sometimes be more effective.

The second difficulty is that the practice of earmarking is likely to subvert other processes at least as vital to the development of a modern system of higher education, integrated national planning and building up institutional excellence. Earmarking by definition tends to be one-off. So there is a real danger that we will be faced with a bewildering proliferation of initiatives and programmes which undermine the infrastructure of careful planning at both the national and the institutional level. Earmarking is the rise and fall of political preferences is inevitably feeble while the rhythm of intellectual and professional development is necessarily more gradual. Again the fast food approach to funding may undermine the accumulation of excellence within the broader framework of the institution. The tree stump may have become an anachronistic metaphor to capture the proper relationship between higher education and the state in the 1980s, but in many ways the earmark is not a desirable even if it is an inevitable replacement.

The end of an affair?

Mr Justice Kennedy's judgment in the Harrington case is a welcome reminder in an age when too many are disposed to doubt it that at its best the law is the common guardian of our often competing liberties. It fully satisfied the three conditions required to bring to a peaceful close the long dispute that began with the unlawful attempt by left-wing students to exclude the National Front student Mr Patrick Harrington from the Polytechnic of North London.

The first is a clear statement of the law. The judge affirmed in unmistakable terms Mr Harrington's right to attend lectures and the polytechnic's duty to ensure that he was free to do so. He also dismissed the spurious claim of privilege, made by the 14 lecturers who had refused to try to identify photographs of disruptors on the grounds that teachers and students must enjoy a confidential relationship of mutual trust. To have allowed such a claim would have been in neither the public nor really the lecturers' own interest.

The second is a responsible attempt to cool a situation that more than once

has seemed to be running out of control. So Mr Justice Kennedy, while rejecting the lecturers' legal arguments, decided that there was no need to enforce the earlier order which required them to look at the photographs. To have done so would not only have exacerbated the situation at PNL by providing a fresh "cause" but also have been out of proportion to what it was designed to achieve - which would simply have been to require the troublesome students to give undertakings of future good behaviour to court. For there is danger in these politicized days that the courts get overused; as the bandwagon of injunctions, hearings and appeals gathers momentum the process of the law itself becomes the focus of attention rather than the unlawful situation which it is attempting to remedy.

The third is the need to pay attention to the broader context which gives rise to unlawful acts. Clearly it was not the job of Mr Justice Kennedy to examine in detail the menacing role of the National Front in inner London or the loony ideology of its far left opponents. But his judgment did show

sufficient sensitivity about the root causes of the Harrington affair to reassure those who have become increasingly concerned by the myopic legalism of some judges.

So thanks to the good sense of Mr Justice Kennedy, a young associate with the Harrington affair has an opportunity to make a new and more sensible beginning. Mr Harrington has won half-a-legal victory, although sufficiently indecisively to discourage him from further legal adventures unless they are absolutely necessary. The lecturers have won a kind of moral victory, but have been left in no doubt of what they will be required to do if it is given a second chance. A peaceful demonstration is planned for today when Mr Harrington attends his first lecture of the new term. If it remains peaceful, Mr Justice Kennedy's sensible compromise will hold. If it degenerates into intimidation, the National Front will finally achieve their propaganda victory - and those who have helped them to achieve it will deserve no sympathy.



The news that Patrick Jenkin has turned down the design for the extension to the National Gallery is worthy of one or two cheers and a lot more discussion - not so much about the design but about the unattractive confusion in which such decisions are too often made.

Most sympathy should be extended to the unfortunate architect, Peter Ahrends - of Ahrends, Burton and Korinek - who seems now as much the victim as the perpetrator of the trouble. With little reward he now has the place in history as the designer of a royally designated caruncle. And that is how his design will always be known.

Everything was wrong about the procedure. The competition was confused; it did not contain a clear statement about the needs of the gallery. And since the extension to the gallery was to be financed by the commercial development beneath it, which has quite different needs, it would have been useful to make clear what the needs were.

The design that satisfied the gallery was that by Skidmore Owings and Merrill, the vast American firm, who later threatened to sue Britan (with some justification since they had studied and satisfied the gallery's demands). ABK's original design was for a long curving wing reaching away from the present gallery. The revision of the design, once they had been awarded the prize and then told to redesign it, lightened the curve on the outside and grouped the rooms on the inside so that they would provide a set of 17 rectilinear galleries - all top-lit and air-conditioned and ending with a new entrance and a restaurant, extended upwards to form a terminal tower.

Mr Jenkin, it seems, did not like the tower. In that he is certainly right. Neither does anyone else. Unusually for him, because he is a very good architect, Peter Ahrends has designed a lump with minimal aesthetic qualities festooned with aluminium rods to support the window cleaning gantry.

But the problem with the design is not only the tower. The rectilinear galleries inside bear no relation to the curving wall of the outside and the floor levels of the old and new galleries ought to be the same.

What in short? Needs is a radical look at the whole project and a fresh start without preconceptions - which is of course exactly what the modern movement was supposed to promote. They have the architect; what they now need is a creatively-minded committee which will hammer out the programme and defend the resulting design.

It cannot be a *paschke* of the past. For if that were attempted which bit of the past in Trafalgar Square should be taken as the starting point? Despite its grandiose portico, Wilkins' Gallery was never a very good building. It is topped by a wretched dome, which is the real caruncle to Trafalgar Square. The only great building is Gibbs's St Martin-in-the-Fields, whose tower and spire is a fantastic assembly of classical items which ought to provoke something equally original on the other side of the square.

Apart from that, the square has a fine old English absurdity, with the pigeon-bombed Nelson in the centre flanked by Landseer's pathetic lions and a ramshackle collection of bombastic buildings around the southern edge. What the Hampton corner now needs is a piece of panache as idiosyncratic as everything else and contributing to the fun.

Patrick Nuttgens

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Late Lindop failing to fulfil Sir Keith's brief

by Karen Gold

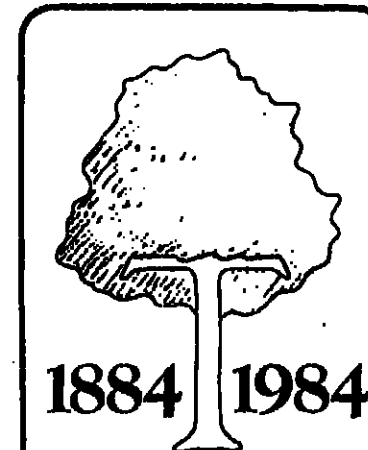
Fears are growing that the Lindop committee, which is examining the continuing need for external validation of polytechnic and college courses, will be unable to produce the short sharp report demanded by Sir Keith Joseph, the Secretary of State for Education and Science.

The committee's timetable has slipped to such an extent that Sir Norman Lindop and his six colleagues are not now expecting to produce even an interim report before next Easter - long after the publication of this winter's Green Paper which is already in its third draft within the Department of Education and Science.

There are also fears that even when the report is finally published it will turn out to be something of a mouse. Informed observers point out that the Lindop committee's room for manoeuvre is severely limited. Recommendations to allow polytechnics to amend their own degrees on the one hand or to tighten up control by the Council for National Academic Awards on the other would both be politically unacceptable, which leaves the committee with little scope for anything but tinkering with the present arrangements.

Sir Keith's original hope had been that a final report would be produced by Lindop within 12 months of the setting up of the committee, and he dropped a strong hint that he would welcome an interim report even sooner.

But the committee is still stuck at the preliminary stage of its inquiry. Its members are only now considering the more than 220 submissions received by the July 30 deadline and they have put off the struggle to reach a consensus about their recommendations until after Christmas. The crunch will only



Toynbee Hall centenary, 12

Chief Scientist inquiry worries researchers

by Paul Flather

Researchers are concerned about a sudden Government inquiry into the options for "privatising" the commissioning and brokerage functions currently undertaken by the Office of the Chief Scientist based within the Department of Health and Social Security.

The inquiry has been ordered by Mr Norman Fowler, Secretary of State for Social Services, to discover how research and development work in health and social services worth almost £19.2m last year could continue "external" to the department.

Mr Tim Nodder, a former DHSS deputy secretary with experience in social policy research, has been asked to conduct a one-man inquiry, and

report back by the beginning of next February. He has been asked to take particular note of manpower savings while creating an effective commissioning structure.

There is no precedent for Mr Nodder's inquiry, although the options he will have to consider include passing the role of the OCS to an existing research council or body, such as a medical foundation or the Economic and Social Research Council, creating a new body, for example modelled on the new independent health training authority, or perhaps a new health services research council, or involving a policy institute or private company.

The inquiry is seen as particularly unwelcome as the DHSS has been assiduous in developing the customer-

contractor relationship proposed in the 1971 Rothschild report, with some 20 liaison officers keeping the department in touch with new research right across disciplinary boundaries.

Mr Nodder has already begun private consultations with key individuals in the Whitehall network and the research community. Among his terms of reference is the need to maintain "good relations" with other Whitehall departments, the National Health Service, the research councils, voluntary and charitable bodies, and the universities. He has made clear he is willing to accept submissions from those experienced in the field.

Sir Desmond Pond, the current Chief Scientist is also due to retire early next year.



Open University lecturer Dr Janet Gale has developed a taste for the good things in life, in conjunction with Mr Anton Mosimann, principal chef at the Dorchester. Together they have developed Cuisine Naturelle, a new style of high class - but healthy - cooking. The new cuisine which excludes appetising but unhealthy ingredients such as butter, cream, salt and alcohol, has just been launched on the Dorchester's clientele, and Mr Mosimann is to publish a book about the subject next summer.

Tender scheme likely for science, engineering

by Ngaio Creguer

The Government is likely to concede demands for extra money for science and engineering students but will insist that universities tender for the cash.

A scheme being considered by the Department of Education and Science and the Department of Trade and Industry will mean some, or perhaps all universities (but not polytechnics) being invited to say how many graduates they could produce in a fixed time and at what cost.

The emphasis is likely to be on general engineering degrees rather than on more specialist courses, because the former tend to attract better quality candidates.

The Government has been impressed with the arguments for more spending in this area but it is concerned that the money should go to teaching and not research. An initial bid in the public expenditure negotiations, the DES has asked for £100m for the programme. The figure agreed is likely to be a lot less. If the scheme succeeds, the intention is to make the money available for next academic year.

Sir Peter Swinnerton-Dyer, chair-

man of the University Grants Committee, told vice chancellors at their recent Cambridge meeting that he thought a scheme of this kind was likely. But he said the lowest tenders would not necessarily be the ones accepted.

He was also hopeful that the Government would increase the equipment grant. The UGC has asked for a 25 per cent increase.

Sir Peter told the vice chancellors a priority for the universities was the problem of small departments. He has asked his subcommittees to produce guidelines for each subject.

On student numbers he foresaw a modest expansion up to the 1990s. He did not expect the UGC to have to penalize universities which exceeded targets.

Also under discussion were overseas students' fees. The UGC has said it will recommend minimum fees for another year of two to smooth the transition to a more competitive regime.

One option backed by some vice chancellors is for a cartel, at least as an interim arrangement. The CVCP officers have been detailed to produce a paper on the subject.

Extramural kitty rules changed

by Felicity Jones

London University stands to be treated as a special case in proposals to change the formula by which the Department of Education and Science pays out the grant to university extramural departments.

The department agreed after negotiations with the Universities Council for Adult and Continuing Education that the available money in the communal fund should be divided equally between London in the first year if safeguards were not built into the formula.

Since it has a low number of full-time staff and low enrolments, the money left over in the grant retrospectively by effective student attend-

Extra cash to go on research and part-timers, says NAB

by John O'Leary and Jon Turney

Research, biotechnology and increased funding for part-time students should take the additional money available for polytechnics and colleges next year, the board of the National Advisory Body recommended this week. But that sum is likely to be no more than £6m once funds have been allocated to pay for some 8,500 more students.

Members of the board decided that the preservation of current funding levels and of access to courses should be its first priority. Having agreed to a 10 per cent increase in the £26,800 student population of at least 268,800 in the public sector for 1985/86, such a policy left little leeway in a total budget confirmed at £500m.

A paper from the Department of

Education and Science put the increase at more than 7.5 per cent after allowing for savings worth £4m resulting from the abolition of the National Insurance surcharge for local authorities.

But the good news was not extended to the voluntary colleges, which will have to manage with £41m, virtually the same amount as last year. The same amount is to be available for research in the colleges down to the average for the local authority institutions.

The NAB committee will decide later this month exactly how much should be allocated to the three areas identified by the board, but less than £3m is likely to be available for research, compared with the £10m considered necessary to carry on the body's research policy. The biotech-

nology initiative, which has not yet been finalized, will cost £280,000. Increased funding for part-time students, one of the main recommendations in the NAB's report on continuing education, would account for the remainder of the £6m available. The committee will also consider proposals by some board members for raising the minimum level of funding in colleges and for a further initiative on information technology.

The need for more emphasis on research was underlined by the Council for National Academic Awards this week with the publication of a new policy statement, which said that the public sector was neglecting important areas of research because of the current emphasis on science.

The CNAA says stress on research in science and technology ignores the

fact that health, education and social services take up most of public spending and are as important to human well-being as technological developments. As much of the degree-level teaching in these areas takes place in polytechnics and colleges, the CNAA wants to encourage institutions to recognize that attempts to solve social problems also contribute to wealth creation.

The report says at the moment local education authorities do not look for research in these areas, and many senior staff are not researchers themselves. And it suggests that work in areas like art and design, education, the arts and humanities, law and social science at a disadvantage, because institutions tend to give money to research programmes which attract outside funds.

DON'S DIARY

SUNDAY

Because of the rains I arrive at East Anglia too late for the opening session of DUET 5 (Development of University English Teaching). There are three main strands to the programme: academic development, literary practice and group events, with three boundary sessions.

The first academic development event uses Maxwell's poem *The Garden* and takes us through a set of exercises which invite us to integrate reading, discussion and comment. It sets a tone for the rest of the week of active learning in which insight often comes unexpectedly. In the evening we have the first group event. Each group has a member of staff who acts as facilitator and nine other members. My group includes people from Poland, Holland and America as well as an English girl who works in Belfast. We have a strange, uneasy meeting, sitting in a circle, some of us at least wondering what on earth we're doing there.

MONDAY

There are two academic development events today. In the first of these John Broadbent suggests that we are moving towards a new criticism of discussion and action related to self-development rather than one of uncompromising statement about what a text is. We run through warm-up exercises which provide us with tools, ways into a text, either through empathy or estrangement, which are accessible to everyone. We look for patterns simply through underlining words or concepts which recur and we invent counter-texts through linguistic analysis, rewriting and performance. I am amazed at how I pass from a crude counting of pronouns to the beginnings of an interpretation of Plath's *Full Fathom Five*. The ideas come fast and furious and our only regret is that we don't get time immediately afterwards to go and think them through for ourselves.

The other session is improvisation and it doesn't work for me at all. Fifteen academics, most of them looking and feeling very self-conscious, are urged to shed their shoes and their selves and to become first Cathy, then Heathcliff and so on. I spend my time wondering how many characters there are in *Wuthering Heights* and whether I'm going to have to feel my way through all of them.

TUESDAY

There's a free afternoon today and therefore no literary practice as such, which is a shame. I find it both helpful and soothing, in the middle of the intellectual activity of academic development and what is at times the emotional strain of the group event, to get together with a different group to do some writing of our own. Both the process itself and the discussion afterwards are usually quite illuminating.

The day begins, however, with *The Tempest* and subjective criticism. We write responses to a particular passage and then go to our literary practice groups to exchange papers and discuss what we've written. It's fascinating and great fun.

Discussion in the evening's boundary event is unprofitable, largely because it revolves around the terms "masculine" and "feminine", terms which mean different things to different people. I feel as though I'm reading a muddled dissertation and want to scribble "define your terms" in red ink all over the margins.

WEDNESDAY

The second subjective criticism session leaves me feeling that this is a positive and useful approach to de-

veloping your own critical perspective and vocabulary and to encouraging close reading of the text. I still wonder, though, to what extent you should attempt to move back from affective response to the actual work and whether the method can be applied to medieval French.

Literary practice finds me feeling tired and dejected. All the negative aspects of the previous few days seem suddenly to come to a head. Fortunately we're given an exercise to take away and after lunch my sense of humour miraculously begins to reassert itself and I become much more positive about everything, even the group event.

Two of the afternoon sessions are spent in self-selected syndicates, working at a specific task: designing a programme of teaching on a particular text and preparing half-an-hour of teaching to try out on another group. I choose to work on *The Tempest*. Ours is not an easy group in some respects but the tension probably contributes to the generation of ideas. Everyone else knows the play so much better than I do and ideas fly around in a very exciting way. I try to help turn them into a workable programme. By 9pm we're exhausted but have somehow completed the task.

THURSDAY

The course we worked out on *The Tempest* seems to go down well with the other group. I'm very impressed with what they've prepared on *Wuthering Heights*. The outline looks at first sight rather vague and frightening since it's largely student-motivated but they teach us the exercises they'd use to start the students off and in no time we're collecting concepts on the board and concrete themes are emerging. I can see myself adapting several of their techniques to my own classes.

I am still sceptical about the group event. Its interest lies, I feel, on the dangerous edge of things. It allows powerful emotions to come to the surface and I worry for some of the members of the group; what they do next week when we're no longer around to share and help or to be used as scapegoats. Despite my doubts I've developed a very strong and positive sense of group identity and of closeness to certain members. We have lunch as a group and Danuta, who comes from Katowice, divides her orange into segments and, holding it out in her cupped hands, offers each of us a piece of it.

The last academic development session is on *The Subject of the Text*. Again, it's rushed through at such speed that it's only afterwards that I manage to work out what it was all about. There's an end-of-term atmosphere and we organize a party at night which most people come to and enjoy. I stay to help clean up and fall into bed at 3.45am.

FRIDAY

The group meets for the last time but fails to get going. For one thing Danuta has to leave at 10 o'clock and we can't seem to pick up the pieces properly for a review session. David Bleich obligingly takes a group photograph of us for Wam, whose camera won't work. "Shuttle, shuttle," cries Wam, demonstrating something between a shake and a rattle. Bleich shuttles vigorously and takes a photo of his own chin.

For the final plenary session the walls of the room have been covered in paper and there's a big pile of ideas and marker pens in the middle of the room. Thus we review the week in writing and drawing. We can all say whatever we want to say; we can all talk at once and yet listen to each other. After a while bottles of wine are opened and later still people begin to drift away. There is no moment at which DUET formally closes down. It is open-ended, a gentle letting-go and releasing which is enabling. Several of us travel back to London to train together, carrying others with us in our thoughts. Finally, all of DUET is down to two of us on an underground platform, unable for a moment to say goodbye. A rush-hour swell of people eddies round us. We're like a stone in a shallow brook, like the pupil in an eye.

Kate Westoby

The author is a lecturer in French at University College, Cardiff

MSC to launch action plan

by Patricia Santinelli

The Manpower Services Commission is to expand its empire even further into education with a plan designed to ensure that at least 80 per cent of all young people enter the labour market with a qualification relevant to their employment.

According to Mr Geoffrey Holland, director of the MSC, the plan was due to emerge this month but is unlikely to become public until November as a result of the search for a new chairman, following the resignation of Mr David Young to the House of Lords and a Government post.

The commission is adamant that education and training for such qualifications should start at 14 and therefore in full time education, but the 14 to 18 age group which the plan covers would also include those studying outside education and those in part-time education mixed with training and employment.

Although the MSC does not spell this out, the likely effect of the plan could be to remove the majority of 16 and 17-year-olds from the labour market.

The actual plan is a direct result of criticisms contained in the report *Competence and Competition* produced in August by the Sussex University-based Institute of Manpower Studies for the

MSC and the National Development Economic Office. NEDO is currently having talks with the Government and various interested bodies to see what action can be taken.

The report, which compares this country with the US, Japan, and Germany, showed that the UK is lagging far behind in its investment and arrangements in many areas including the initial training of young people. Only in the UK do the majority of school-leavers enter the labour market at the age of 16 - in Japan and Germany only 5 per cent do so.

Speaking about the plan, Mr Holland said that the time was ripe for action. "The report highlights the fact that we have a desperate shortage of skilled manpower, particularly at the middle level, which has been made worse by the collapse of the apprenticeship system. Heaven help this country if it does not take the message of this report seriously."

The MSC's plan is to bring in all existing schemes, from the Technical Vocational Education Initiative, the Youth Training Scheme, the Certificate of Pre-vocational Education and developments planned in non-advanced further education under one umbrella, consisting of different pathways leading to a qualification at the age of 18. Mr Holland pointed out that there

were three issues which had to be solved to put the plan into action: equivalence of qualifications, status of trainees and their remuneration.

It was widely expected that the report *Competence and Competition* would result in the announcement of changes in the Youth Training Scheme at the Conservative conference this week.

The changes proposed by the Youth Training Board have been with ministers for the last month and are known to have formed part of the expenditure discussions.

The commission says that the rate of entry into YTS is double that of the financial year at 150,000. In addition, placements had been very encouraging with two-thirds likely to have a job and a substantial number having gone into further education.

The MSC estimates that in some parts of the country, the placement rate was as high as 90 per cent, while in others it was 50 per cent. Before publishing figures, however, it is waiting for information being gathered from the trainees themselves.

● The MSC revealed this week that it has already been given the authority to appoint further education regional experts to implement the White Paper *Training for Jobs*. Interviews have taken place and offers have been made.

Just 40 minutes spent on education

by John O'Leary

The Labour Party's annual conference devoted less than 40 minutes to its deliberations on both education and training last week despite having three lengthy motions to debate.

The outcome was a commitment to abolish the Youth Training Scheme but no appreciable change in the party's higher education policy. The main bone of contention, apart from Government cuts, was the activities of the Manpower Services Commission. Labour's national executive committee wanted the motion on training omitted because of fears that its pledge of a full-time job for all trainees completing a training programme run on trade union rates would be impossible to deliver. But delegates voted by a majority to adopt the resolution.

On the Youth Training Scheme, the

resolution said: "Conference believes that this cheap labour scheme must be vigorously opposed by the whole of the Labour movement." But it stopped short of calling for the withdrawal of union cooperation, adding: "Conference also believes that, where youth training schemes exist, trainees cannot be ignored or boycotted."

In the motions on education, the conference committed Labour to a minimum grant of £25 a week (at 1982 prices) for all students in further and higher education and also to a reconsideration of the future of the MSC. It called for "a major reorganization of education and vocational preparation, working within a policy of planned job creation, to be carried out by democratically accountable local authorities in cooperation with the teaching profession and the trade unions, and in

consultation with employers, to replace existing Manpower Commission programmes, including the Youth Training Scheme and the community programme and completely remove education from the market place."

Successive speakers, including Mr Giles Radice, Labour's chief spokesman on education, attacked the Government's record of expenditure cuts. Mr Radice said the position of the two parties could be gauged from the fact that Labour had spent £600m more on education than defence, while the Conservatives were spending £3.5 billion more on defence than education.

Mrs Renée Short, winding up the debate for the executive, said the Government had reduced the supply of graduates in science, technology and engineering at the very time when more were urgently needed.

Middlesex poly to discuss university status proposal

To be or not to be a university: the question went back to Middlesex Polytechnic's academic staff this week after its local education authority members refrained from making a decision.

The proposal that the polytechnic should become Middlesex Polytechnic University came in a paper from the polytechnic directorate, accepted by its governors and considered by the Joint Education Committee of three local authorities - Barnet, Enfield and Haringey - responsible for the polytechnic.

Opposition to the proposal came from polytechnic staff representatives at the JEC meeting, and from some local authority members including Mrs Nicky Harrison, Haringey's education chairman and chairman of the council

of local education authorities. She said of the proposal, which apparently has no legal obstacle but would need approval from the Department of Education and Science: "I think it is ludicrous. It is an absolute nonsense and something I could never support. I find it insulting to polytechnics."

But Mrs Amy Emaden, JEC chairman and an Enfield representative, supported the idea: "It's not an idea to try and become a university. It's an idea to bring to the public and particularly industrialists and commercial people that the polytechnic is getting degrees which are equivalent to a university," she said. "There was great support for it at the JEC in principle but we wondered how we should tackle it."

Colleges score well in cooperation awards

Further education and technical colleges feature prominently in this year's Royal Society of Arts' education for excellence awards which recognize projects aimed at enabling students to work in cooperation.

Seventeen projects have been recognized out of which over half come out of higher education. The Open University's faculty of technology has

received an award for its design processes and products distance learning programme which aims to develop design awareness for a wide range of students.

The University of Warwick's department of engineering has been singled out for its course in engineering design and appropriate technology which tries to produce "self-

sufficient" engineers able to solve socially relevant problems.

A six-month course of training for people working in different settings with mentally handicapped people at West Sussex Institute of Higher Education gains another award along with Barnet on Trent technical college youth training scheme course for students with special needs.

Scottish union boycott row still simmering

A further education branch of Scotland's largest teaching union, the Educational Institute of Scotland, has passed a motion opposing the suspension of the campaign against privatization.

The motion from the Lothian region committee of the EIS further education sector said it was amazed that the national executive should suggest that privateers suspend action.

recommended this in a ballot after the validating councils of the government's 16 to 18 Action Plan agreed on a two year moratorium on privatization. The results of the ballot are expected this weekend.

However, the Lothian motion says the suspension of action is "quite impractical and totally lacking any credibility among our members". The committee has recommended that its

members refuse to operate the suspension.

Mr Arthur Houston, further education officer of the EIS, said he had written "fraternally" to the branch, pointing out that they were usurping the powers of the national executive. He added cryptically that this was a rebuke as opposed to a reprimand.

There has been considerable feeling against calling off the action plan boycott.

DES to review the visitor system

by Ngalo Crequer

The Department of Education and Science is to review case histories since the university visitor to see if any general conclusions can be drawn about the working of the visitor system.

The decision was taken by Mr Peter Brooke, under secretary for higher education, because of the rising number of complaints received by the DES about the alleged unfairness of the system.

Mr Jeremy Nichols, a principal in the DES further and higher education branch, is conducting the review. He will look at all cases referred to the department over the last year to see if any pattern emerges.

But he will not be assessing the rights and wrongs of any particular case. The department has no powers to revoke, overturn or alter decisions made by the visitor or even offer an opinion or redress to individuals in any case.

Mr Derek Fatchett, Labour MP for Leeds Central has been referring cases of alleged unfairness to the minister and it was in correspondence to him that Mr Brooke first agreed to look at

three specific cases mentioned.

The minister has since decided to widen the scope of the inquiry and the department has also been conscious of the campaign run by RULES, Reform University Law and Educational Standards, which, among other things, is pressing for reforms in appeals procedures for postgraduate students.

RULES is currently reviewing more than 80 case histories involving alleged unfairness in university procedures and plans to present a report to a Parliamentary Select Committee later this term.

The question of postgraduate appeals will be discussed this session by the Reynolds committee on academic standards, set up by the Committee of Vice Chancellors and Principals. Mr Brooke is likely to consider the final Reynolds report alongside his own review.

One of the cases to be examined by the DES is that of Mrs Fiona Master, who alleges that insufficient supervision and advice was given to her by Leeds University in the writing of her PhD thesis, which was rejected. The Privy Council is about to consider her appeal.

Work starts on jobs figures

by John O'Leary

A new forum including all the main bodies involved in monitoring graduate employment has held its first meeting and agreed to work towards a single system giving more detailed and reliable information on all those coming out of higher education.

Representatives of the vice chancellors, polytechnic directors, the University Grants Committee and the National Advisory Body, the Departments of Education and Science and Employment were among those meeting in the field last week. And they agreed to hold annual meet-

ings to help improve the flow of information on the output of highly-qualified manpower.

There was strong support for a system of data collection which would provide comparable information from both sides of the binary line. At present, much more detailed information is available on university graduates and there is considerable duplication in the statistical work.

It is also hoped that funds will be found to produce a long-term study of graduate careers, rather than relying on surveys of occupations only six months after graduation.

news in brief

Nigerian student allowed to stay

A campaign backed by dozens of student unions has succeeded in reversing a decision by the Home Office to send a student at Bolton Institute of Higher Education back to Nigeria a year before her course finished.

Mrs Miebaka Brown has been told that she may complete her Higher National Diploma in business studies despite a previous warning that she would be deported because her visa had not been renewed. Four MPs, her local authority and the college all supported her appeal.

Musical chips

The University of Lancaster has set up a Centre for Research into the Applications of Computers to Music to explore ways in which new technology can help budding musicians. Staff will examine the use of the computer as a teaching aid for music theory and aural training from the beginner to university level.

The centre will not be involved, as yet, in the mechanical representation of sound, or the use of the computer as a composer of original music.

Salford member

Professor Martin Harris, professor of romance linguistics at the University of Salford, has been appointed to the University Grants Committee for four years. It is the first time a member from Salford will have served on the main committee.

European degree

The University of Buckingham has introduced a new BA honours degree course in European humanities. It is designed to allow continental European students to work alongside British students. British students will spend a preparatory language term in France or Germany, and continental students a term at Buckingham.



Left: Dr Clyde Binfield, Professor Hamish Ritchie (dean of arts faculty) and Mr John Thompson.

From policy to a PhD

Roles were reversed at Sheffield University last week when the civil servant with direct responsibility for policy and finance throughout higher education registered as a part-time student.

Mr John Thompson, the under secretary who heads one of the further and higher education branches at the Department of Education and Science, is seeking out something of his roots in enrolling for a part-time PhD in history.

But to his tutor he is now just another student who must pay his £355 a year fee and submit an 80,000 to 100,000 word thesis. "No, I have no worries about failing him," laughed the history lecturer Dr Clyde Binfield. "There are certain standards that have

to be met. But it's an interesting point

Although Mr Thompson's father was a minister, it was not in Whitehall but in the Congregational Church. He himself has a deep interest in the history of the non-conformist churches. An Oxford history graduate and career civil servant, he wants to study how the First World War affected attitudes among members of those churches.

So he is enrolling for a minimum of four and possibly five years of study. Mr Thompson, who lives in London, could have done his PhD at some of the University of London colleges. He chose Sheffield because Dr Binfield is an authority on his subject.

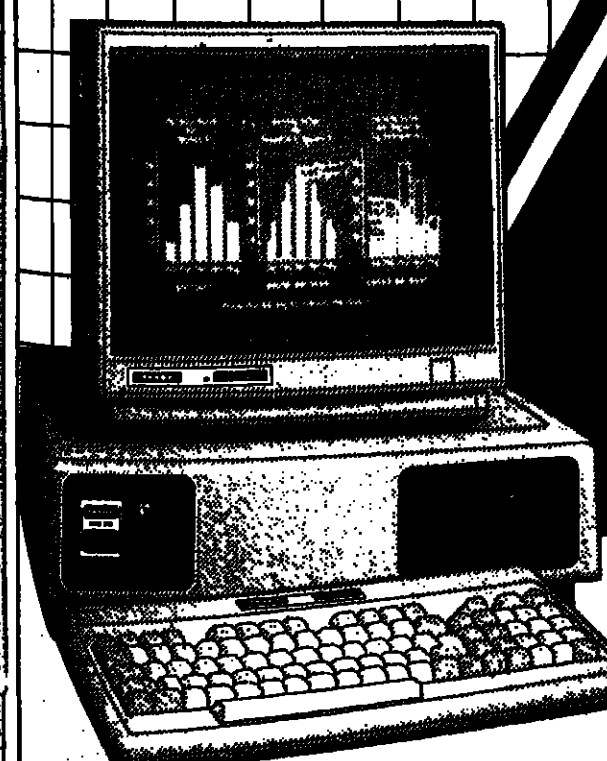
\$55,000 raised for lectureship

The 400 members of the Scottish Motor Neurone Disease Association have raised \$55,000 to endow a lectureship at Strathclyde University.

Two years ago, the association donated £30,000 for an investigation into the disease for which there is no known cure or treatment at present. The funding enabled Strathclyde to establish the John MacLeod lectureship,

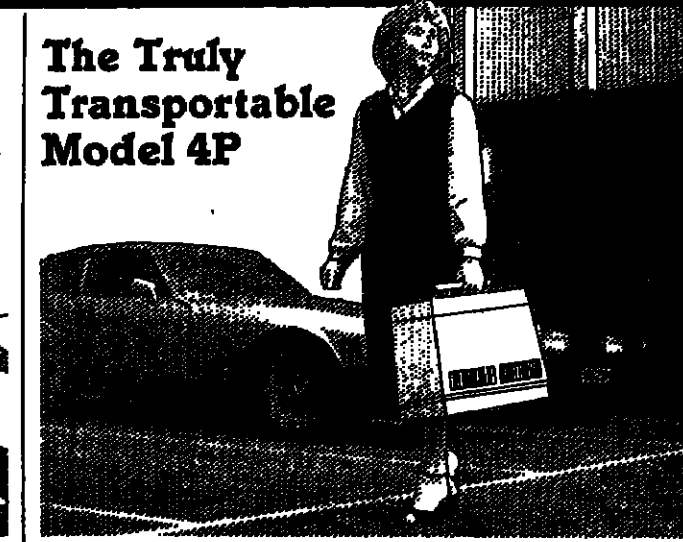
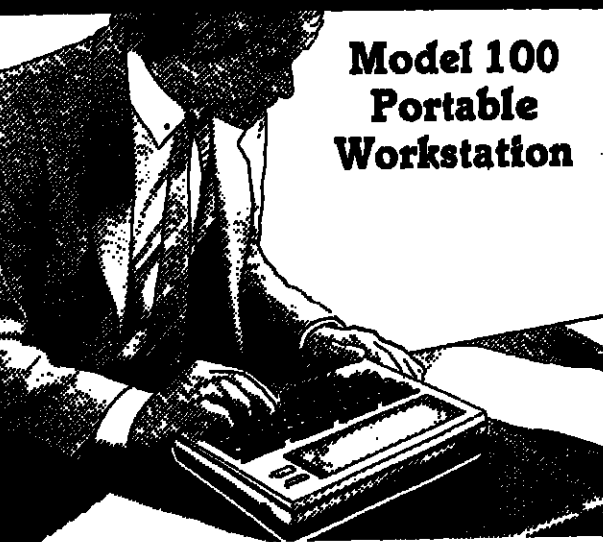
named after a young Glasgow policeman who died of the disease last year, and the holder of the fellowship, Dr Alan McCrudden, has been appointed to the new John MacLeod lectureship.

The latest donation was collected through a variety of fund raising events, including a sponsored parachute jump which raised almost £7,000.

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THIS 8

Robotics 'being neglected'

by Jon Turney
Science Correspondent

Poor support for advanced robotics research in Britain is jeopardizing the benefits which should flow from new initiatives in international collaboration, a leading university group has alleged.

The robotics research group at Warwick University has told the Department of Trade and Industry it needs £2m a year for the next three years to keep up advanced work in mobile robots. It has called for a larger robotics programme to create a British robotics community of at least 50 people.

Dr Jim Halsall, a senior research fellow in Warwick's robotics laboratory, speaking on behalf of the group, said the Science and Engineering Research Council's decision to concentrate on robots for manufacturing was leading to neglect of more fundamental work. "The SERC's robotics initiative concentrated on applications and did not have a research effort of any significance," he said.

The Warwick researchers point out that robots for use outside the factory are one of the areas for international collaboration chosen by the science and technology group set up by the Versailles economic summit in 1982. The Versailles initiative is supposed to take in robots for new applications like mining, firefighting, underwater work and dismantling nuclear power stations.

The SERC has passed responsibility for liaising with the other countries involved in this kind of research to the Department of Trade and Industry, following the council's decision to concentrate on manufacturing robotics. So far, the discussions following the Versailles decision have concentrated on exchange of information rather than joint research.

Dr Halsall questions whether even this can continue without a stronger British programme. The rate of build-up in France and the US seems so fast that in a few years they won't want to tell us their secrets," he said.

The prospects for increased funding for this kind of robotics in Britain look slim. Dr Peter Smith, who runs the SERC's new automation directorate, said the council could not afford the manufacturing work and the mobile robot research, and had opted for the more focused programme.

On the DTI side, officials stress there has been progress in the information exchanges called for under the Versailles agreement, and that it is hard to go further without a national programme. Any decision there will be taken against a background of the wish of Mr Norman Tebbit, the Secretary of State for Industry, to cut back in most areas of DTI spending.



The new academic year brought a familiar scene back to the Polytechnic of North London's Kenilworth building as Mr Patrick Harrington, the National Front member at the centre of the dispute with his fellow students, arrived for lectures. Heavy rain kept down the number of demonstrators as Mr Harrington passed apparently unmolested. Other students in the third year of his philosophy degree course are continuing to boycott lectures.

Hague tries to get PhD cash

by Paul Flather

Social science graduates with good first or upper second class degrees now have more than twice as much difficulty winning postgraduate awards than they had six years ago.

New data compiled by officials at the Economic and Social Research Council show that 1,900 graduates or 26 per cent of the total with good degrees in 1978 won postgraduate awards, compared with 880 or just 9 per cent of those with good degrees graduating last summer.

This private evidence has been used by Sir Douglas Hague, the ESRC chairman, to try to persuade members of the University Grants Committee and the Advisory Board for the Research Councils to support future protection of the already depleted supply of social science postgraduates.

The figures arise from the combination of a rapid decline in the number of postgraduate awards, halved over the past five years because of a 30 per cent

cut in the ESRC budget, an increase in the total number of social studies graduates from 23,319 in 1978 to 29,475 this year. The proportion of good degrees remained about the same.

Sir Douglas has been particularly active behind the scenes during the current discussions on how to switch graduates from social science and arts to science and technology subjects. He warned in a paper to the UGC it would be a recipe for disaster if graduates who did not understand the social and managerial problems of technological change were not produced.

The UGC in its recent "strategy document" also warned against sacrificing the social sciences in order to boost science and technology students. It says many jobs need graduates with a particular specialism "in the arts and social studies as much as in the sciences", and managerial needs in industry and commerce also need to be satisfied.

Ministers now concede the switch as

originally planned is now off. The Department of Education and Science supported by the Department of Trade and Industry is trying to persuade the Treasury to release at least an extra £50m to pay for new science graduate places, removing the necessity of cutting social science places.

Overall, the ESRC says it now supports just 3 per cent of the total number of social science graduates, compared with 7.5 per cent in 1978. It believes it is able to support proportionately fewer graduates with good degrees than any of the other four research councils or the British Academy which deal with humanities awards.

Figures taken from a recent ABRC paper show the planned awards in each area: the Science and Engineering Research Council total was 4,936, the British Academy 1,268, the Natural Environment Research Council 531, the Medical Research Council 414, the Agricultural and Food Research Council 63. The ESRC figure is 880.

Oil boom to help the deaf

Deaf people are about to become the latest if belated beneficiaries of the North Sea oil boom.

Specialist training for speech therapists to work with the deaf has been limited in the past to a small programme devised by the Bloomsbury health authority in London or to courses in the United States.

Now a five-month pilot course in speech therapy for the hearing impaired is being run, underwritten by Chevron Petroleum.

The course, a joint venture between the Royal National Institute for the Deaf and the National Hospitals College of Speech Sciences will be open not only to speech therapists but also to social workers and teachers of the deaf.

It will cover various topics during the five months including sign language and hearing aid technology, linguistic analysis and acoustics.

Southampton gets Ford grant

The Ford Foundation has awarded a grant of \$255,600 over three years to a research team at Southampton University to study all aspects of Third World security relations, including arms transfers, economic links, development pressures, and the transfer of technology.

The team from the politics department, including Professor Peter Calvert, professor of comparative and international politics, also plans to study all aspects of relations between the Third World and the Western and Eastern blocs. The grant was one of 18 in international relations picked.

College wins extra time

by Olga Wojtas
Scottish correspondent

Leith Nautical College, threatened with the loss of more than half its courses, has won an unexpected breathing space.

The recommendation to axe its courses and concentrate on Scottish nautical education in Glasgow came from a joint working party of the Scottish Education Department and the Convention of Scottish Local Authorities.

But COSLA's education committee has now decided by ten votes in nine not to accept the report, and the working party will reconvene to consider its conclusions again in the light of representations from Leith.

It is not clear what precipitated the committee's unusual move. Dr Malcolm Green, the committee's con-

venor, said it was felt that submissions from Leith deserved further consideration. Leith has argued that the working party has taken too narrow a view of nautical education, and has based the report on past rather than future needs.

Mr Alex Ward, chairman of the college's academic staff group, said the committee's move reflected the wide support given to the college, and would enable Leith to put forward its case. However, it is likely that the education committee has also been affected by the constant underlying tensions between east and west, and that there has been an internal battle between Strathclyde and Lothian regions.

The education committee has accepted the working party conclusion that nautical education should be concentrated in one centre. The debate will now be over whether that centre

should be Strathclyde's Glasgow College of Nautical Studies or Leith in Edinburgh.

Whatever is eventually decided by COSLA and the SED, Leith has at least managed to escape transfer next year from the Government to Lothian region. The college has bitterly opposed the proposed transfer from central institution status to become a local authority further education college. The delay in any decision over the future of its nautical courses means it is now too late to effect any transfer next September as originally planned.

Lothian has not made any official statement on whether it is willing to accept Leith but councillors have commented privately that they are not enthusiastic. It is possible that Lothian feels that if Leith becomes Scotland's centre of excellence in nautical studies, it would put pressure on the Government to retain it.

Experiments 'will attract unemployed'

by Felicity Jones

The education service will have to do more experiments if it was to reach unemployed people, a conference on adult education and unemployment organized by the London Association of Continuing Education was told last week.

Mr Alan Tuckett, principal of Clapham and Battersea Adult Education Institute in London, said: "Education for the disenfranchised is expensive. It is often interdisciplinary and it is against many of the ways of working large bureaucracies develop by challenging existing subjects, tutorial and management experiences."

Service was to be developed to be more responsive to inner city needs than more experimentation was needed, he argued.

Three such experiments in London were highlighted. The St Francis "drop-in" centre in Greenwich caters for young unemployed people on a large white-dominated housing estate and provides an informal atmosphere based in a house there. The provision of food, music and a chance to sit and talk has turned out to be the key to success in attracting the "non-joiners" to classes rather than the more formal educational activity.

The Shillington Women's Workshop offers young women a chance to take over a branch of an adult education institute for a day in the same informal vein to take photos, make films or just talk over tea.

A third initiative arising out of popular planning and learning through new forms of economic activity, such as Ravensbourne Institute which helped local Vietnamese to set up a food coop to avoid the high fares to Soho, in central London, is a further pointer to unorthodox methods used to attract people to join institutions and take part in education.

The most significant programme of education organized by unemployed people was one set up by them, on their terms and in their own way, Mr Tuckett said.

But there was not much evidence that this was happening. Out of a survey of 21 institutes maintained or direct grant-aided by the Inner London Education Authority only three had links with this kind of self-help group. They were the Mary Ward Unwaged group, the City Lit, and Poney and Wandsworth Institutes.

Meanwhile the formal courses on offer were bewilderingly varied and weighted vocational education at places ranging from further education colleges to polytechnics offering diplomas for adults.

Yes to ACSET

Recommendations from the Advisory Committee on the Supply and Education of Teachers on training in second subject for intending secondary teachers were largely accepted by Sir Keith Joseph, Secretary of State for Education and Science, this week. He was pleased to see the new Council for the Accreditation of Teacher Education (ACSET) take the professional training implications of the policy, which decides that courses should aim to prepare students in no more than two subjects.

Space race: Britain could lose out, minister told

by Jon Turney
Science Correspondent

If European space scientists don't gear up to use the American space station, they may have to drop out of space research altogether in the 1990s. This stark prospect was spelled out at a symposium on British space policy last week by Dr David Clark of the Science and Engineering Research Council.

The meeting was organized by the Department of Trade and Industry so that the new minister for information technology, Mr Geoffrey Pattie, could hear from industry and academia why Britain should pay part of a European contribution to the American project.

Time is very short. The US National Aeronautics and Space Administration is going ahead with the \$8 billion project with or without European help. And Britain must decide what to do about it before a meeting of European research ministers from the member countries of the European Space Agency early in the new year.

The likely British contribution to a European share of the space station could run as high as £250m, and this would mean a substantial increase in the present national space budget, now standing at around £80m a year. British scientists hope we will take a

full part in the space station, which will provide a platform for a range of observations of earth and space, as well as offering a chance to send researchers into orbit. Dr Clark told the DTI meeting space science was now recognized as the ultimate justification for the space station in the US, and scientific requirements should be at the forefront of space station planning in Europe as well.

He emphasized that there are strong British interests in astrophysics and geophysics which could use the station. But the final decision will also be heavily influenced by industrial and technological considerations. The scientists also argue that research applications push space technology to its limits and that there is scope for work in robotics, artificial intelligence and new materials in the station plans.

Dr David Stanley of the computer firm Logica also told the meeting the project would be a driving force for new technology, and suggested British involvement in the programme should dovetail with the existing Alvey initiative in advanced computer research. He believed the establishment of the permanent space station could lead to a larger share of the space science budget being used for instruments, rather than platforms in space.

Poly directors back call for more cash

The Committee of Directors of Polytechnics has backed the National Advisory Body's call for more money and an expanded Robbins principle in higher education.

But it has warned that the NAB's proposals for stretching the Robbins principle to give higher education to all

who are able to benefit from it, will cause great difficulty in defining ability to benefit.

The CDDP has also said that the NAB strategy for higher education in the 1990s in sound in its support for research, continuing education and projected stable student demand.

Freeze-dried future planned for Pete's sake



From a violent death 2,500 years ago to the Middlesbrough mortuary and Middlesex Hospital x-ray unit, this man is the most exciting arrival in iron age history and forensic medicine for a very long time.

Scientists and archeologists were this week studying x-rays of the preserved body of the man they have irreverently named Pete Marsh, after the peat bog near Wilmslow, Cheshire where he was found. But at first glance the x-rays seemed inconclusive, because of the decaying effect of the marsh on his bones.

But its effect on his skin and hair is another matter: they have been perfectly preserved in the pool of water into which he was thrown sometime between the sixth and eighth century ac, with the cord used to garrote him still around his neck.

He was found by peat-cutters whose machine sliced off the lower part of his body. They found one of his legs in their machine and a peeling foot lay took it to the local police, who in turn referred it to

Liverpool University physical anthropologist Mr Robert Connolly. Wrapped in cling-film and held in a special refrigerated coffin at 4°C, Pete Marsh will now undergo tests on his skin - tanned like leather by the bog; his perfectly preserved mummified fingernails which suggest he belonged to the ruling classes; his mousy hair and red beard; and the peat samples around him.

Mr Connolly also hopes to find his internal organs intact, including his stomach containing his last meal. He is to go back to the Atomic Energy Authority's Harwell plant for more accurate carbon 14 dating, and to the universities' joint x-ray diffraction centre for another look at his bones, and possibly his teeth. They would shed more light on his age, at present believed to be about 30. Eventually he will be freeze-dried and exhibited in the British Museum. He was, according to Mr Connolly, "the only skeleton ever found of a man of sunlight on what Iron age man was like."

Exeter College in £3m appeal

Exeter College, Oxford, has launched an appeal for £3m to pay for new buildings and to endow new fellowships.

The new buildings will provide extra space for lecture rooms, the bursary and 37 additional study bedrooms. The new fellowships will include one in Spanish named after Queen Sofía of Spain, another in molecular biology and biochemistry, and a third in engineering with a particular eye on robotics and information technology. With old members who include the

world's first four-minute miler and a recent head of the Central Intelligence Agency, the college is confident that the £3m target can be met. Already more than half that sum has been promised.

Lord Crowther-Hunt, rector of Exeter, admitted that this was an ambitious target for a medium-sized Oxford college. "So are our plans," he added. "They are designed to take the college into the next century as we approach the seven hundredth anniversary of our foundation in 1214."

What Prince Charles has done for architecture his father is intent on doing for industry. "Industry," says Prince Philip, "is by far the most important activity in our national life. This is a fact and it can do no good at all to give it a bad reputation." Educationists - and editors of education supplements - please note.

His Royal Highness is president of "Industry Year", which is 1986. He might well sign. What, another "Year"? How many have there been in recent memory? Trees, productivity, design, quality, information, women, the child, and let's not forget "Buy British" which keeps coming up every other year.

It is hard to remember them all and even more difficult to know what good they do. So, understandably, the threat of another one is greeted with suspicion. Presumably their importance filters through over a period of time; hopefully they play an educative role.

It is hardly likely that Industry Year will reduce unemployment, increase output or help over exports. But then, it might play a part in all three. Any small further steps may lead to a giant move to improving the economic status quo. It just might stimulate British

PARTY LINE

Making industry our business

businesses to promote themselves in a more positive fashion. By this I mean not just marketing and selling their goods more effectively. They need to project themselves more dynamically to our aimless young people.

In many ways the objectives of Industry Year run parallel to - indeed it duplicates - the concerns of the 1978 Finniston commission at the widespread social indifference to industry. As Finniston also pointed out, the corrective to this is a large part of the responsibility, in the final analysis, of our schools and colleges.

Education's responsibility does not stop there. Its contribution to training might also help transform our traditionally slow reaction to any sign of economic upturn.

The truth is that most of what is needed to be done has been spelled out many times - not least in the Finniston report. Industry Year

must do more than merely talk yet again about it.

So many of the small businesses, to which the government has ascribed high priority and launched scores of specific aid measures, have faded and died within months of their creation. It is doubly depressing at a time when there is no let up in the shortage of jobs and the peak numbers of school-leavers in the High Street in particular it is an all too depressing and familiar cycle.

What would Napoleon think? We may still be a "nation of shopkeepers" but we are not very good at staying in business. The problem is not confined to shopkeepers. A recent survey by the Department of Trade and Industry shows that 50 per cent of small businesses newly registering for VAT deregistered within two and a half years. At the heart of the problem is the

disproportionate effort which people starting out on their own give to actual development of their product as against researching their potential market, their marketing technique and their financial control.

In educational terms it suggests that we might not be so bad at teaching and learning skills of various kinds, but are not yet doing enough to discover and develop entrepreneurs. I'm not suggesting that the education world can turn anyone into an entrepreneur. But it could give a great deal more help to those people of all ages who are, or might be, thinking of starting in business.

Despite the all-too-usual catalogue of complaints by people in the education service of the Manpower Service Commission, the latter has in this area, as in so many others, at least started the process for change. The New Enterprise Programme - at a cost of £853,000 - is an

MSC-sponsored scheme at the London Manchester, Warwick, Durham and Glasgow business schools, which offer 16 weeks' instruction in sound business and financial practices.

Following this instruction, for a further three months the trainees have access to their business school's assistance in actually launching the business. During this period, the MSC pays them a living allowance and provide a market research budget.

It shows what can be done when there is no Treasury official mesmerised by the cost of the bottom line. The cost of help is high, but if the participants are genuine wealth-creators they will in turn soon create jobs.

All the indications are that job creation through this means in the long term works out at a tiny fraction of what we have paid over many years in regional development grants. The tragedy is that there seems to be insufficient decent applicants. So we are back to whole problem of long-term changing of attitudes. Roll on 1986.

Keith Hampson
The author is a Conservative MP for Leeds North-West.

If you're involved with higher education or research studies then you're involved with hi-technology and computers.

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Defending a degree of wider access

There has always been a danger that in the events which surrounded Patrick Harrington, student in philosophy at the Polytechnic of North London and a member of the National Front, other important issues would be lost. With the lifting of the order against the 14 lecturers at the polytechnic there is now perhaps an opportunity to look at some of the other threats to academic freedom there which are also of significance to the black community.

The PNL, like many other polytechnics and colleges in the public sector, has a commitment to students who do not have the standard entry requirements for admission to degree courses. Many such students are mature, many will be women and many are from ethnic minorities. What they have in common is that they have missed out on the traditional A level route into higher education and have to be admitted to degree courses under special procedures.

The Council for National Academic Awards has recently issued the results of a project conducted by the Policy Studies Institute on "Access to higher education: non-standard entry to CNA first degree and DipHE courses", aimed at encouraging institutions to admit more of these students for the CNA has always encouraged a flexible admissions policy.

However the CNA says: "Figures suggest that the sector is not making much use of that flexibility and, under severe budgetary restrictions and pressures from numbers of normally qualified 18+ applicants, institutions may make less use of that flexibility in the future."

The CNA's policy at the institutional level is also of course echoed in the National Advisory Body's advice to the Secretary of State on the future of higher education. In that advice, the NAB suggests that the provision of adult and continuing education should be seen as a major responsibility for higher education.

The CNA inquiry reveals a distressingly small proportion of non-standard entrants to higher education amounting to some 4.5 per cent of total admissions. These, in turn, are differentially distributed across institutions and courses.

At the PNL, apart from provision for certain special access courses linked to degrees in education and the Certificate in Social Work, a significant number of non-standard entry students are admitted to the courses in sociology and applied social studies. It is these courses which were the subject of the recent inspection by Her Majesty's Inspectorate which purportedly identified "a long tail of low achievers". They are now in danger of having their course numbers curtailed.

Part of the reason for that curtailment lies in the influence of the NAB which under Government pressure has determined a swing away from humanities and social science, the areas in which the greatest proportion of non-standard entry students are to be found. On top of this, however, the Secretary of State is exerting pressure for curtailing the courses and thereby the numbers of non-standard entry students.

It would be the greatest tragedy if these pressures were to lead to a reduction in opportunities for students including a significant number from the black communities.

Jean Boock

The author is assistant secretary, Higher Education at the National Association of Teachers in Further and Higher Education.

Art and design: jobs exist, places don't

by Owen Surridge

Thousands of young people are being denied the education they need for careers in art and design because of a shortage of places in colleges and an under-estimate of the career opportunities open to those interested in developing a talent for these subjects. The evidence was produced at a conference of the new National Society for Education in Art and Design held near Reading, Berkshire, last weekend.

Figures showing the extent of the demand for places were revealed by Mr Michael Veomans, dean of Manchester Polytechnic's art and design

faculty. "The filtering which goes on from secondary school onwards is phenomenal," he said. At his polytechnic the number of applicants was four times the number of places available on courses. Competition was severe and the quality of applicants was high.

"In no way are we scraping the barrel," he said. "Most applicants have to A levels and some have as many as six." He said 95 per cent of those accepted completed foundation courses successfully, "but of the 3,287 who applied only 538 were accepted." Afterwards, he said, there were 310

applications for 33 places on MA courses. Claiming that these figures were reflected nationally he said: "We have moved significantly away from the Robbins principle that those who are able should get higher education."

"Of the 12,045 applications for degree courses in 1983 only 5,724 were enrolled. The figures do not reflect on the quality of the applicants. We could increase the intake by 25 per cent without any lowering of standards."

Evidence of an unsatisfied demand for BTEC courses in art and design was even more impressive, he said: "Out of

4,684 applicants we enrolled, nationally, only 464." Urging art and design teachers in schools to "get off their backsides" and go out to see the extent of the competition for places and to find out where the colleges were doing, he said: "Failure to do this means their pupils will be disadvantaged because they will not know how to prepare them. Lack of liaison between schools and colleges is seriously hampering pupils' opportunities and careers teachers are not bridging the gap."

Mr Tony Charlton, NSEAD research officer, told the conference that career opportunities for young people who wanted to qualify for art and design courses were seriously underestimated in schools.

"There are 70 different subject specialisms available for study at art colleges," he said. "Numerous careers stem from them and there is a well-established career structure in art and design. People who tell young people who want art and design careers 'be practical, do it as a hobby' are giving an outdated view. There are real possibilities."

The A level work is irrelevant. That view could fuel pressures which could damage art work in schools. The fact is that the GCE A level examination is good for teachers in secondary schools.

The society is also to promote an interchange between teachers in secondary schools and in further education.

New society sorts out A level tangle

Conflicting views about the value of the GCE A level certificate in art and design are causing confusion. The NSEAD has committed itself to sorting out the tangle.

Mr John Steers, secretary of the organization, said: "In secondary schools teachers do a lot to perpetuate the myth that A level art-certificates are regarded as of no great value in higher education. They are making too

much of this. The fact is that universities do value art and design A levels and do not make the mistake of seeing written work as being more important."

The misunderstanding was compounded, he said, by those art colleges which claimed to disregard A levels and preferred to make their judgments on contents of portfolios. "This argument could be extended to suggest that

Adults can shop around for training

An experiment using education to tackle unemployment has been launched in the London borough of Southwark.

A collaborative venture between the council, the Inner London Education Authority and the Greater London Training Board has backed the setting up of Inset, an education and training shop in the high street for adults to get educational guidance.

The high level of funding makes it a model for the future. The three-storey building houses five full-time workers, including a disability specialist, who together have already counselled 800 people in three months.

Information on all education and training courses available are in the process of being put into an information bank through Inset's computer.

Mr Jim Anders, principal of Southwark adult education institute and Inset chairman said the centre served a dual purpose to advise and to guide institutions over the gaps in their courses.

Creche facilities are also available and a large mobile caravan has been equipped to provide an outreach service.



Parents using the shop can take advantage of the creche

It is seen by the GLTB as a pilot for future aid to London's unemployed. Even before it went public, the centre dealt with over 200 inquiries of which 75 per cent were from unwaged and unemployed people.

Inquiries from women have turned out to be double that from men and

resulting gaps in courses for women have already been detected.

The GLTB would like to see other boroughs following this example but the government's rate-capping measures will make it difficult for so much money to be put into educational guidance in future.

MSC director wants changes to meet updating challenge

by Patricia Santinelli

Rapid changes in our training and education system were vital if industry's massive need for retraining its workforce was to be met, Mr Geoffrey Holland, director of the Manpower Services Commission, said last week. Speaking at a conference on "New Technologies in Training" in London, Mr Holland said that some estimates suggested that between half and three-quarters of the workforce across all sectors of industry and commerce might require some form of retraining, updating or enhancement of skills over the next five years.

"That challenge is not going to be met unless our education and training systems can rapidly become more responsive and flexible. Nor will it be met unless the education and training systems continue to develop and use new approaches and new methods," Mr Holland said.

Mr Holland added that one of the key points about the new technologies, particularly information technology, was that they had few boundaries in the free world. "They flow freely and fast. They also break down traditional barriers, especially that which has existed between something called 'education' and something called 'training'."

But Mr Holland warned that there were other barriers too. Some were financial, but others were barriers of attitude or behaviour such as resistance to innovation, particularly quite drastic innovation which could radically alter our traditional notions of

training centre, classroom, tutor and course.

He said that he had four main messages to deliver. One was that there was a growing need to bring together the technologist, the trainer, tutor and teacher, who too often were working in watertight compartments unable to communicate with each other.

Second he warned that everyone should remember the learner. The new technologies enabled us to tailor learning to the needs of the individual learner, and to provide learning of the kind required, at the time required, the place and at the pace required, as well as at the price the learner could afford.

It is important that none of us in the education and training business take the learner for granted. Moreover it is essential that none of us should restrict, or ration, or control or condition the learner.

Third, it was critical that industry should maximize the use of technology in the workplace for training. "If employers are introducing any new technology in the workplace and are not at the same time thinking about its use for education and training, then they are failing to capitalize on an important opportunity and may possibly be making an expensive mistake," he said.

Finally Mr Holland said that new technology, particularly manufacturing, should rethink their sales policy, too often led by technology and not sufficiently by the need of individual companies.

Privatize Stirling, urges FCS

Stirling University should have its government funding withdrawn over the next three years as a pilot scheme for the privatization of higher education.

This advice, from the Federation of Conservative Students, will be sent next week to both the University Grants Committee and the Department of Education and Science.

Mr Mark MacGregor, senior vice chairman of FCS, said this was a moderation of former policy, which had been to close Stirling down.

An amendment had been passed last month at the federation's half-yearly council, backing the complete privatization of universities, colleges and polytechnics and proposing that a third of Stirling's funds should be withdrawn annually for three years as a first experiment.

Stirling was the best choice for privatization since it was campus-based, had large grounds, and the £40m Wang Laboratories Science Park.

Mr MacGregor said the federation would also recommend a pure loan system to replace student grants.

Stirling University court has appointed as its chairman Mr Angus Mitchell, former secretary of the Scottish Education Department. Mr Mitchell replaces Lord Stewart, the High Court judge, whose term of office as chairman ended in the summer.

Community social work 'needs boost'

by Paul Flather

More university and polytechnic social work departments should strive to emphasize community social work methods when training their students, a one-day symposium of social work educators and managers heard last week.

The call came from Professor Roger Hadley, professor of social administration at Lancaster University, one of the gurus of the so-called "patch" approach which emphasizes a more coherent and preventative system of social work based on small area teams of workers.

Professor Hadley also presented the findings of a detailed 18-month study of a patch system run in Northampton, Wakefield, which showed that a community-controlled approach leads to a more responsive and effective system of social work when compared to the more traditional case-work system.

The 1982 Barclay report, on social workers, to which Professor Hadley contributed a strong minority report, argued strongly for a community social work approach. Glasgow University pioneered an option in patchwork methods for students taking the Certificate of Qualification in Social Work, and now South Bank Higher and Further Education are introducing patchwork.

But more institutions needed to follow this lead, Professor Hadley said after the symposium held at the National Institute of Social Work in London. "More departments need to recognize that work in the field is switching towards the community approach," he said. "It seems to me that students should be taught to move between the casework approach and the community approach."

He agreed that in the end this required a new partnership between social work departments and social service departments where students spent about one-third of their course time on placements. At present only a handful of departments have fully switched to the patch system.

Professor Eric Sainsbury, professor of social administration at Sheffield University, who chaired a session on education and training, believed the patch approach would eventually encourage a new type of social research more able to indulge in social research and analysis as well as the more traditional care skills.

At present courses are free to reform their curricula to introduce a greater community-centred approach under guidelines laid out by the Central Council for the Education and Training of Social Workers.

But the CCETSW may choose to recognize the trend towards patchwork more formally in their current review of social work training. When Social Services are Local, the *Normanton Experience* by Roger Hadley and Morna MacGraith, George Allen and Unwin, £18 and £6.95.

Finnish thesis row sparks debate on standards

from Donald Fields

HELSINKI

A refusal by Helsinki University to pass a doctoral thesis looks likely to spark a debate in Finland, and possibly further afield, on the standards of academic research and the conditions under which it is practised.

The thesis, by Ms Karmela Bellink, a licentiate, political activist and outspoken feminist, is called *Women's Suffrage and Fiction in England, 1905-14: Facts and Visions*. The annals reveal that this is only the fourth doctorate in history not to pass muster with the university's department of history and philology, the last such instance being in 1950.

It is doubtful if the combined imagination of Kingsley Amis and Malcolm Bradbury could have devised in fiction anything to equal the Bellink affair in fact. According to university sources, the unfortunate lady was so confident of her intellectual prowess that she had orchestrated an intense publicity campaign before the doctorate was publicly debated which suggested that a professorship was hers for the asking, and that donations to charity would outrank flowers as a form of appreciation.

The work, printed in English with at least 400 blatant linguistic errors, highlighted with such howlers as "the suffragettes were revolting" and use

of the word "gay" as if its connotation had not changed since the days of Wilde and Pankhurst. One perceptive passage maintained that "irrelevant material was deleted, and what was left was considered relevant". Vast chunks of the work were copied from sources without quotation marks, which the would-be doctor considered "ugly".

The fragrant tale is crowned by the implications of the fact that Ms Bellink, who poses as a radical militant in radio programmes but runs on the conservative ticket at local elections, is Jewish. Already one of her opponents, Dr Merete Mazzarella has been accused of antisemitism in two anonymous letters.

Dr Mazzarella is worried that if the thesis circulated outside Finland it could do untold harm to Helsinki University's reputation. She regrets that the printing was given the go-ahead by two Swedish women professors who had probably not perused the work at all.

The affair begs questions about a system in which only a negligible proportion of candidates for doctors' degrees are never failed, though the quality of work submitted can vary enormously. Some of Finland's brightest minds are aware that northern European practice, like the German, tends to emphasize plodding work speed by endless footnotes and bibliography and obscure original thought.

Appeal for funds to help maritime university

by Thomas Land

The world's shipping community has launched a \$25m appeal for funds to support the young World Maritime University, set up in 1983 in Malmö, Sweden, to help to reduce oil pollution and accidents at sea by providing specialist training for senior maritime administrators from the developing countries.

The appeal was made by the London-based United Nations International Maritime Organization. Its timing is significant, for the International Convention on Standards of Training for Seafarers - perhaps the most important treaty establishing global crew standards - came into force this year. Donations to the university have been made already by the Commonwealth Secretariat in Britain, the UN Development Programme and several countries as well as shipowners.

C. P. Srivastava, the secretary-general of the IMO, explains that most accidents at sea are caused by human error which can be attributed often to poor training. Most developing countries suffer from severe shortages of maritime administrators, surveyors, lecturers for training academies, technical managers for shipping companies and others on whom the successful implementation of the new international standards most depend. "And the creation of national shipping fleets has recently emerged as a development priority for many poor countries seeking independent global trade links."

Now in its second academic year, the Malmö university has 136 students from 59 poor countries, most of them engaged in a two-year maritime administration course. Established by the UN and supported by several traditional seafaring countries, the university is widely regarded as an academic success. But its financial



C. P. Srivastava: "poor training"

status is far from secure. Hence the IMO's appeal for capital funds to provide a steady investment income.

The financial future of Canada's International Centre for Ocean Development, which is concerned with a transfer of technology as well as training, is guaranteed by a government commitment of \$20 over five years. The institution is to act as a clearinghouse of training, information, research and advisory services, drawing on all of Canada's academic and technological resources, both private and public, to make them available to the marine industries of the developing regions.

Both the Malmö centre and the Malmö university are concerned with global safety standards. Because of the international nature of shipping, a training and technological gap in the developing regions necessarily endangers many lives and causes pollution and financial waste everywhere. At present, more than 1,000 lives are lost at sea every year along with an average of 250 vessels.

Warsaw reopens without a new rector

Warsaw University reopened last week for the new academic year as the only Polish institution of higher education without a democratically-elected rector. The election in May of Dr Klement Szaniawski, a philosopher who had played a major role in drafting proposals for more liberal education during the Solidarity period, was overruled by the minister of science, higher education and technology, Dr Jędrzej Miskiewicz. The electoral college of the university, which refused to accept the minister's

veto, was suspended for six months. Instead, the opening ceremony for the new term was presided over by the outgoing rector, Dr Kazimierz Dobrowolski. Reports apparently coming from the university's public relations office, but which did not appear in the Polish media, say that there was a meeting between Dr Miskiewicz and Dobrowolski at the end of August, during which the latter agreed to stay in office as the rector until February 15. The electoral college would be allowed to hold new elections as soon

overseas news

Ireland to increase support

from John Walsh

DUBLIN

The Irish government has given a firm commitment to increase the level of real resources to higher education by almost 5 per cent by 1987.

It has also promised to begin work on a range of higher education building projects and to improve student grants. But tuition fees will rise faster than inflation over the next three years.

The provisions were announced in the government's new economic plan entitled "Building on Reality 1985/87". The plan says that government policy at third level is to provide education for as many young people as possible. It predicts that enrolment at third level will continue to grow at 4 per cent per annum.

On the capital side the increase in total resources will, by 1987, involve a

4 per cent rise in the volume of third level investment. The extra resources will allow work to begin on a number of projects including new regional colleges in the greater Dublin area, phase one of a new engineering school for University College Dublin and a clinical sciences complex for Trinity College, Dublin.

The education minister, Mrs Gemma Hussey, is particularly pleased with the capital commitment but has conceded that the extra accommodation will not cater for the growing demand for places.

The plans say that discussions are still taking place on the question of rationalization and effectiveness of the third level in order to cater for as many staff, along with all the other public sector workers, face the possibility of no pay rise next year and only minimal increases for the following two years.

ern society will be funded with particular reference to new technology.

The maintenance element of higher education grants and scholarships will be increased by 10 per cent in real terms next year and the income limit eligibility by 5 per cent. This will benefit about 28 per cent of the republic's third level students, while the rest of the students face the unenviable prospect of yet higher fees - a prospect which has sparked off warnings of militant student action.

Academic administrators are relieved there is at least some improvement foreseen in the third level sector in terms of current and capital spending. But in terms of their own personal income they are less happy - for the staff, along with all the other public sector workers, face the possibility of no pay rise next year and only minimal increases for the following two years.

Grant problems cause for concern

from Barbara von Ow

MUNICH

West German students are suffering increasing financial problems as a result of the government's grant policy, the country's largest student organization (DSW) has claimed. In its 1983 report, it said government grants (Bafög) amounted to some DM 2 billion last year, little more in relative terms than what students received in 1972 when the Bafög grant system started.

This was all the more disturbing as student numbers have soared to over 1.2 million over the past decade while the cost of living has nearly doubled, the report said. In 1983, only 29 per cent of all German students received government subsidies, compared to 35

per cent in 1981. In some cities, including Berlin, Bonn and Cologne, the share has slumped to 20 per cent, it added.

Submitting the report, the DSW general secretary Bachmann said the main reasons for this development were the restrictions on Bafög grants introduced by the Kohl administration in 1981, as well as their partial conversion into fully repayable loans in the last winter term.

The number of grant applications has dropped by between 8 per cent and 20 per cent during the past year, he said. Fear of accumulating massive debts were deterring children from poorer families from going to university and he expected to prove this trend with more detailed statistics in 1985.

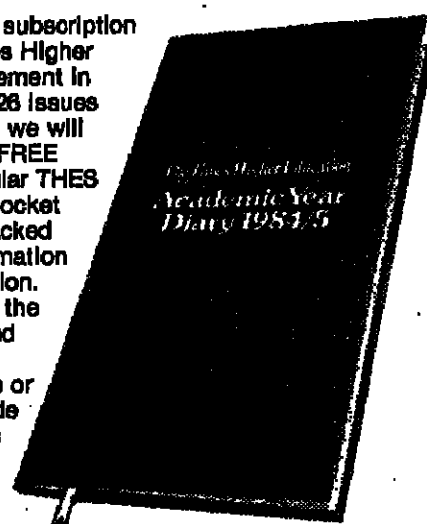
At the same time, the DSW would appeal to the government to carry through an inquiry of recent student trends.

Meanwhile, the DSW has received a total of DM 200,000 in donations from former students supported under the old Honnacker model. It expected to collect a total of up to DM10 million from graduates promoted under this model or under the Bafög system which replaced it in 1971, Bachmann said. These donations would be used in cases of special hardship, he added.

The DSW employs more than 10,000 people to run financial, cultural and health services for German students. In 1983 it served over 55 million student meals while administering 82,800 students hostel places.

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HEB

Alan Walker argues that social planning must be placed higher on the nation's agenda

The tyranny of small decisions

Planning is a dirty word in Britain at the present time. But in comparison with the partial avoidance, neglect and tolerance of different environmental planning regulations, the removal of social planning from the social policy-making agenda has been complete. Its mere mention in some official circles is said to bring forth responses of shock and horror reminiscent of Bateman's "The Man Who..." cartoons. What explains the current aversion to and sorry state of social planning? Does its relegation from the policy-making arena matter?

Social planning has had a chequered history, enjoying its heyday during the postwar reconstruction, falling from favour in the late 1950s and experiencing a revival in the mid 1960s. The most recent steady decline in its fortunes can be traced back to the failure of the ill-considered National Plan of 1965, when social planning promised more than it could deliver. Although more modest initiatives followed — such as the creation of the Central Policy Review Staff or Think Tank, and Programme Analysis and Review in 1970 and the two attempts in the 1970s to establish a national planning system in the personal social services — these were consistently frustrated by a combination of their own weaknesses and crises in the economy.

Already in a dismal condition, the eventual demise of social planning was ensured by the election of a government pledged to "rolling back the frontiers of the welfare state". When it is believed that, if left to its own devices, the market will maximize national welfare there is not much point in erecting additional machinery to achieve this end. The case against planning becomes overwhelming if, at

servants necessary to carry it out is regarded as being positively harmful to the operation of the market. Thus strategic social planning — the overt process of developing, implementing and evaluating policies intended to promote social welfare and guide society along a particular path of social development — was killed off by ideology. By, in John Biffen's words, an instinctive aversion "to planning the future. Of course government ministers have clear ideas about the sort of society and social relations they want to create, but when these are embodied in social policies, such as privatization, they are not open to public discussion, evaluation and subsequent modification. They are commands rather than plans."

The impact of the Thatcher government on the strategic planning machinery has been devastating. The main changes may be summarized.

- Abolition of PAR in 1979 and the CPBS in 1983.
- Switch from planning public expenditure in "constant" or inflation-proofed prices to cash terms.
- Cut in the public expenditure planning period from four years to three years.
- Extension of the power of the Treasury to control spending and influence policy-making in other departments.
- Further restrictions on the freedom of local authorities to plan by means of greater control over their finances and central determination of local needs.
- Abandonment of the national planning system in the personal social services and the collection of information from local authorities which accompanied it.
- Increased central control over allocation of resources in the National Health Service to district health authorities.
- Severe reduction in the government statistical services following the Rayner review.
- Cutback in the production of information about the condition of British society — for example, statistics on the numbers of people in poverty — and in the sponsorship of social science research through the Economic and Social Research Council and the Department of Health and Social Security.

While these measures demonstrate the clear opposition of the Thatcher administration to any open-ended in-

quiry or planning it would be entirely mistaken to blame the government for the long-standing poverty of social planning which, in turn, has contributed to both its own demise in Whitehall and the general lack of esteem in which it is held. Social planning was grossly underdeveloped before the present government came to power. It has always been confined within narrow departmental and administrative bounds, secretive and only rarely involving the subjects of planning: the clients and claimants of the welfare state. It is fragmented not only between departments but also between different competing professional and other interests within the social services. It is "bureaucratic", being concerned only with small ad hoc adjustments — increases or cuts — to existing institutions and services without a longer-term plan for progressive social change. No attempt is made within this framework to spell out the rationale for the different policies of government and how they might fit together and contribute to social development.

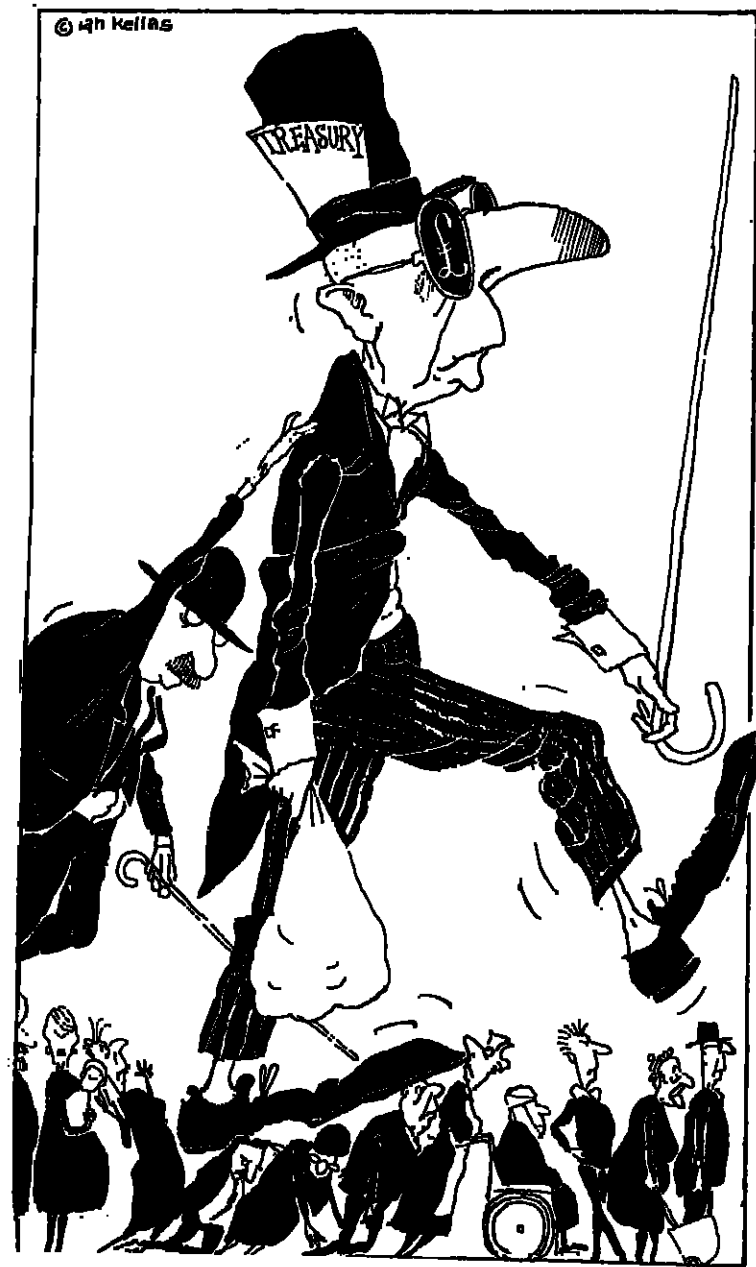
One of the clearest signs of the underdevelopment of social planning is the patent inability of the premier social policy department of state, the DHSS, to conduct any strategic planning across the three sectors of its responsibility: health, personal social services and social security. This has been exposed most recently by a series of damning criticisms by the House of Commons Social Services Committee. For example: "At this point, the committee wishes to record its disappointment — and dismay — at the continuing failure of the DHSS to adopt a coherent policy strategy across the administrative boundaries of indi-

There is, in fact, no permanent machinery in the DHSS for planning service provision in relation to need or for searching out new or unrecognized needs. The only attempt to involve the public and claimants in particular in service development — the 1978/80 review of supplementary benefits — turned out to be nothing more than an empty public relations exercise. To a large extent "planning" at the DHSS amounts to just the forward programming of existing services in relation to resources and the search for items of expenditure that might be cut back.

Social planning has been restricted to only one part of the real world of welfare

A second, less obvious, indication of the underdevelopment of social planning is its complete failure to address the power and influence of the private sector. The fact that the social division of welfare entails a division of policy-making, research and planning between the social, fiscal and occupational sectors has been overlooked for far too long. Social planning has been restricted to only part, albeit an important part, of the real world of welfare. The welfare activities of the private sector, including company investment and pricing policies as well as non-wage benefits and private hospitals, and nursing homes, have been considered to be outside of the competence of social planning; with the result that state have, at best, reinforced inequalities and frustrated the welfare goals of public policy.

For example, the proliferation of non-wage benefits for the better-off during the periods of pay restraint in the mid 1970s completely sabotaged the admittedly half-hearted efforts of governments of both parties to spread the sacrifices fairly. The massive growth now under way in private nursing homes for the elderly has severely restricted the ability of any future government to strategically plan the allocation of national resources to the elderly. Similarly the privatization of selected parts of the welfare state will not only further fragment the social services but will also reduce the



potential for social planning to influence the overall development of British society. A more mixed economy of welfare, will positively inhibit attempts to plan social development more coherently because social priorities cannot be assembled in the face of what Hirsch called "the tyranny of small decisions".

While the continuing division between the social policy-making of government and the private sector would require a major change in policy to overcome the similar division between the social and fiscal policy arms of the state would not. Yet there is no concerted planning of taxation — both as a mechanism for raising revenue and as a form of expenditure — in relation to other aspects of social policy. It is difficult to imagine the poverty trap resulting from conscious planning rather than the long-term neglect of the need to plan the interconnection between taxation and social security. A third point to the poverty of social planning is the virtual absence of social indicators by which to measure social progress. This deficiency has been highlighted recently by the Social Service Committee and by the Black Committee on inequalities in health. The US Department of Health, Education and Welfare recognized, in 1970, that social indicators will not be obtained as a by-product of accounting and administrative routine. Yet research and the collection of information in Whitehall is conducted solely as an adjunct to bureau-incrementalism, rather than critically to assess the impact or effectiveness of policy or to illuminate alternative approaches. There is a danger too that the ESRC will define its role more and more narrowly as being to provide answers to policy-makers' problems.

In contrast to the ever increasing range and sophistication of the tools at the disposal of economic policy-makers, including several working models of the national economy, the social policy-makers cupboard of indicators is almost bare. For example, the DHSS does not have anything to compare with the Treasury's econometric model of the economy, consisting of 1,000 variables and 700 equations. It has no means of forecasting social development or the future impact of social changes, for example the impact of unemployment on the social services or on the provision of care to the

elderly — in the same way as the Treasury may forecast changes in the economy. Most telling of all there are no official indicators of need or minimum standards of service constructed for the purposes of reporting the present social condition of British society and assessing whether or not social progress is being made.

If strategic social planning is concerned with developing policies designed to bring forth national resources in order to meet need and determine social priorities between different claims on those resources, it has never been fully achieved in Britain. Again it is not just the Conservative government that has failed to take a functional and comprehensive approach to meeting need, the Labour Party has constructed "alternative" plans which mirror existing departmental responsibilities and practice. The main reason for the present low regard for and neglect of social planning, therefore, are that it has been conceived and operated within too narrow boundaries and practised so poorly. As a result, either it promised more than it was able to achieve or it proved to be wholly ineffectual.

The underdevelopment of social planning is due overwhelmingly to the dependence of social policy on economic management. The fragmentation of planning, its confinement to the public sector and the inadequacy of its statistical tools are all symptoms of the subordination of social planning to the economy. Although the division between economic and social policy is a false construction — because economic policies embody assumptions about the distribution of resources between different groups, industries or regions and because of the crucial role played by social policy in economic change — it exerts a powerful influence in sustaining the primacy and legitimacy of economic values and policies and the secondary or interventionist role of social policies. This social objectives, in the words of the DHSS, "are subject to the overriding requirements of the government's economic policy".

In crude terms this means that "economic" policies are considered to be more important than "social" policies. The assumption of the supremacy of economic over social policy is signalled in the characterization of the latter as a "public burden", or "poor man's economic policy". It is evident in the

current dominance in policy-making of the narrow economic definition of efficiency, in terms of the costs of the inputs to policies, over consideration of the social efficiency, equity or effectiveness of their outcomes. It is obvious too in the equation of national welfare with economic welfare and practically with economic growth. Thus it is widely assumed that growth is a necessary prerequisite for any increase in redistribution. Not only does this create a major barrier to social change but, when growth declines, it is the poor who suffer most.

The major practical outcome of the dependence of social policy on economic policy is that social planning in government is dominated by the Treasury. Public expenditure programming is the main form of social planning in Whitehall. The role and scope of social planning and its potential contribution to development, therefore, is severely limited by the short-term public expenditure planning period and the predominantly financial considerations of the Treasury. Treasury control of the public expenditure system institutionalizes the subordination of social policy and planning to the economy. As the Treasury puts it: "Finance must determine expenditure, not expenditure determine finance." Public expenditure planning then, is cost-orientated rather than needs-orientated.

The fragmented, bureau-incremental, centralized and undemocratic form of social planning practiced in Britain up till now has been largely ineffective in developing a coherent set of social policies aimed at meeting need and few will mourn its passing from the policy-making process. What is required is a new structural form of planning. This would be directed, for the first time in this country, at the long-term transformation of existing institutions and policies in order to achieve a more equitable distribution of resources, status and power between different groups and classes.

Why do we need social plans? In the first place, social planning is required to plan social development according to need. It is necessary to overcome economic hegemony in the policy process in order to enable social needs and priorities to be established as the basis for production and distribution. So, structural social planning could be the vehicle for the reintegration of social and economic policy. This, in turn, would reestablish social objectives, such as the abolition of poverty, alongside economic objectives like economic growth. By doing so a different set of priorities for political action would be produced.

Second, social planning is required to overcome the present fragmentation of planning. The divisions of planning between social, economic and environmental planning, between the public and private sectors and within the state are stultifying to the planning of social development according to need, which requires a comprehensive assessment of resources, needs and priorities.

The third important factor in the case for social planning is the need to democratize the policy-making process. Citizens, and especially the clients of the welfare state, must play a more active part in the planning and development of services if these are to be more responsive to their needs. Unfortunately the existing planning apparatus has tended to reinforce bureaucratic and professional power rather than form a bulwark against it. The democratic participation of citizens in local and national planning would also help to restore stability and cohesion in social life through the process of sharing in the determination of social needs and priorities.

The open planning of social development in relation to need is at odds with the current antipathy towards planning. But, although the social planning machinery has been dismantled, planning has not gone away, it is taking place in secret away from the glare of publicity and the possibility of detailed scrutiny. We only learn about the direction that British society is being steered in by occasional leaks from Whitehall and infrequent public statements. It is high time that the planning process was placed fully in the public domain and a national debate initiated about the social condition of British society.

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Since his death 150 years ago, Robert Malthus's reputation has undergone some curious twists and turns. Even his given name has shifted — to Thomas, a name his family never used. Now, perhaps, he survives most visibly in an adjective — a largely spurious one — popularized in Aldous Huxley's *Brave New World*. Yet, while "Malthusian" suggests a sour, eugenic future, Robert Malthus himself was very much a man of his time, deeply involved in practical affairs; he was a curate in Surrey, a fellow of a Cambridge college; when he died he was professor of political economy. Without any doubt he would have deplored the uses to which his name has been put in the past century and a half.

Malthus belonged to a comfortable class that was prominent in intellectual life. His grandfather, Sydenham Malthus, was a successful lawyer who had become a landowner, and his father, Daniel Malthus, lived the life of a literary gentleman. Daniel was a friend of David Hume and Jean-Jacques Rousseau and was much attracted by William Godwin's book *Political Justice*. Robert Malthus was a fellow of Jesus College, Cambridge, when the undergraduate Samuel Taylor Coleridge was initiated for not paying his tutor's bill; Godwin's wife, Mary Wollstonecraft, was a powerful feminist writer, and their daughter Mary wrote *Frankenstein* and married Percy Bysshe Shelley.

Robert graduated in 1788 with a first class degree in mathematics as ninth "wrangler". The French Revolution naturally greatly stimulated discussion on the nature of perfectibility of human society and Godwin's influential book appeared in 1793. Malthus first took a serious interest in population questions when he pointed out that the optimism of Godwin and others that a perfect state of society could be achieved depended on the assumption that such an ideal world would not have a high birth rate and thus lead to overpopulation and disaster.

In later life, Malthus himself was really a general political economist, with important ideas about the possibility of an inadequate supply of human labour, a controversy which he lost to David Ricardo — and political ideas about the essential role of the individual family rather than the state in fighting poverty, over which he was eventually largely victorious when the Poor Law was reformed. Nevertheless, a man can rarely stand for more than one thing in the popular memory and Malthus stands for population.

He was not the first nor by any means the last writer to make the obvious point that population must be limited by the food supply. He was, however, perhaps the most persistent. His original *Essay on the Principle of Population* of 1798 was only 50,000 words long; by the sixth edition of 1826 it ran to 225,000 words.

He tried to reduce population variations to a simple principle, that where food supplies rarely increase faster than in arithmetic progression, population tends to increase in geometric progression. This is probably the famous laws of Malthus by stating what would happen if no forces prevented it. We can notice, however, that the arithmetic increase of food supplies is really the observation of a man of affairs, the horse-sense of actual experience; whereas the geometric ratio is a tendency, not in the long run or the short run, but in the abstract.

The two progressions are not on the same intellectual footing. In practice, both positive and preventive checks to population occur, and Malthus (who used those terms himself) made his preferences among them quite clear. The positive check of increased mortality through famine and disease was repugnant to him, but so was the preventive check of physical concubinage. He regarded the latter as "vice", and urged instead the prudential restraint of sexual abstinence through celibacy.

Only by late marriage, and thus by having small families, could a properly Christian society avoid both the misery of poverty and disease through overpopulation and the vice attendant, in his view, on any other kind of sexual practice. Interestingly enough, Malthus did not marry until he was 38 and only had three children.

Controversy raged around Malthus in his lifetime. He had begun as a revolutionary and the idealists were opposed to him. He could be represented as being against people; as a deplorable; as heartless; as a cold intellectual. People in power, how-



Political economist Robert Malthus (above), modern Calcutta (right). How can this work be used to find a solution to overpopulation in the twentieth century?



Origins of crowd control

T. H. Hollingsworth reassesses the contribution of Robert Malthus to social and economic thought

ever, gave him some respect. After all, in some sense he must have been right.

The English Poor Law, after the decision of the Berkshire magistrates in their historic meeting at Speenhamland (near Newbury) in 1795, had begun to be operated in many counties so as to give effective family allowances to destitute men. Malthus believed that this only encouraged early marriage and hence more births in those areas, a view which has been recently shown to be at best only a slight effect; more probably, the moral suasion of children was lowered in areas adopting the Speenhamland system of payments. He wanted the Poor Law to be reformed, and this was done at last in 1834, the very year of his death.

This coincidence led to Malthus being associated in the British mind with a particular dispute and as belonging to a particular intellectual age. England, at least, did not appear to be in imminent danger of overpopulation and it was easy to forget about Malthus altogether after 1834.

Late marriage in Ireland is the only practical example of Malthus's remedy

In Ireland, however, the potato famine of 1845-48 could be seen as a Malthusian retribution; a positive check to a population that had been marrying too early and increasing too fast. It is questionable whether any such interpretation is justified since the famine was caused by a disease of the potato and not by an ordinary inability to increase productivity. Moreover, only part of the population was affected, the British policy towards Ireland must also have played some role in making the poor so vulnerable; it is not even clear that they married uncommonly early.

However, the reason of the Irish people to the famine approved; they began to marry later and later, and many never married at all. This is the only example known of Malthus's remedy being adopted in practice.

In the rest of western Europe Malthus's reputation grew after his death. Translations appeared in many languages and his attempt at finding a universal principle of population could not but impress.

In France, population growth was slower than anywhere else and one school of thought believed that the school of thought to French living standards. Later, the relative lack of growth of French population was seen

as a national weakness and an "anti-Malthusian" school began to advocate schemes intended to raise the birth rate.

Lower birth rates were advocated in England within Malthus's lifetime notably by Francis Place, a working man who retired in early marriage, and argued (in 1822) that contraception was the only way to save personal misery. Place met with partial success, but the birth rate only fell decisively after the trial of Charles Bradlaugh and Annie Besant in 1877 for publishing an edition of an American book, *The Fruits of Philosophy* by Charles Knowlton, which had originally been published in Boston in 1820. Its title sounded innocent but it was a practical manual of contraceptive methods.

The indictment failed, amidst great publicity as the Education Act of 1870 meant that there was a new young reading public. Over the next 55 years, the English birth rate fell steadily, largely by means that Malthus would have deplored although the age and frequency of marriage also rose somewhat.

In more recent times, Malthus's name has been revived. Since 1930, and especially since 1955 or so, the less developed countries of the world have been experiencing unprecedented rates of growth of population. In Malthus's time, England grew faster than any other country, but the rate of increase was only about 1½ per cent a year, and the extra food was largely imported. In much of the third world, population doubled between 1955 and 1980, a rate of increase of around 3 per cent per year.

Naturally enough, this "population explosion" has received great attention, but Malthus himself, rather than this, has hardly been noticed in this connection. He would have presumably regarded the increase in population as a temporary phenomenon, and urged the people to refrain from vice and not marry until they were 35 or so. Only in modern China is there something of a Malthusian approach to the population question, with late marriage part of a policy based on the idea of deliberately reducing the rate of population growth.

Why then, is Malthus still important? He is not particularly original nor particularly relevant. His remedies are out of favour and much that he discussed can now be seen as for his age, and not for all time.

There is one aspect of his work which does, however, command respect today. He recognized that the population question is not just some thing that may or may not be of political interest at any particular

period. Instead, Malthus makes it fundamental to the very basis of political philosophy, something that cannot be ignored.

It is this that generates controversy and often very strong emotion. For it may be that a very attractive set of ideas, such as Malthus's, cannot be accepted as a basis for action because of their demographic flaw. It is naturally infuriating to be reminded of this, and Malthus himself adopted his own approach and considered how his own Christian beliefs were affected by his principle of population.

It is all very well to say that in the kingdom of God there is neither marriage nor giving in marriage, but it is not relevant to the human condition here and now. We are a biological species however much we theorize, and we need resources to live, of which food is in fact only one.

Karl Marx was, as would be expected, strongly opposed to Malthus. While trying to construct a universally valid theory of social behaviour he did not have anything cogent to say against the Malthusian objection that the stern necessity of feeding everyone could ruin his paradise unless proper provision was made.

Since Malthus's death demographic research has become a much more serious study

Production of food cannot be raised without limit and the earth is a finite planet. Moreover, 3 per cent growth a year is extremely rapid. About the year AD3020 the entire mass of the earth would have to be converted into human beings if the present population were to expand at such a rate. It is not so very remote a date; even more astonishing, by AD5580, supposing resources had been somewhere found to sustain them, this one great mass of human beings would actually have to expand at the velocity of light simply to maintain the 3 per cent increase.

Even somehow spreading out the population would hardly solve the problem. By AD3220, the population would equal the mass of the sun; by AD4120, that of the galaxy, and by AD5000, that of the entire universe. Compared with the many hundreds of millions of years before the sun blows up, this is a short time span indeed; and the problem if solved in one generation, is always ready to rise again.

To bring the matter nearer home, many people today hold the view that human life is infinitely precious. If they

really mean it, however, to be consistent they should presumably want more people at whatever cost. It is not so easy to believe in values that are high, but not indefinitely so.

Moreover, many people fear that their section of the world may suffer to the advantage of some other part if they restrict their numbers while their rivals do not. Any theory that attributes special worth to simple numbers of people easily leads to such a conclusion.

Thus the present age does respect the spirit of Robert Malthus in this sense. It is only in the long run that food supplies will become scarce, but the search for an acceptable philosophy of life is continuous. We do not need the *Essay on the Principle of Population* to tell us that many minerals are strictly limited in their supply. Indeed, we have long since exploited the intrinsic scarcity of precious metals by using them as a basis of currency.

The ordinary operations of mankind, however, take scant account of the long term. About 30 years ahead is the very longest view that ever seems to get taken in practice. Yet fossil fuels will obviously not last the human race for ever, or even for more than a few centuries. We are assuming now that we will somehow solve our problems in the future.

What are the prospects of finding a firm basis on which to stand while formulating our ideas about society? In the end, we may have to adopt a very interfering view.

Ultimately, it cannot be immaterial to one family whether or not its neighbours have a child. Malthus himself would have argued that it was indeed of no account to the first family if the second had an extra child, but only if the first will guarantee not to lift a finger to help the second should it get into difficulties, but to watch the child die as unemotionally as it saw it born. If you are agreeing to help those in trouble, in fact, you should have had some say in whether or not the child was born in the first place.

At present, we hedge on this moral dilemma. We have a public philosophy that is only superficially to the limit period between the beginnings of organized agriculture, specialization of labour, and the modern seven or eight thousand years ago and so far have enabled population to grow much faster than can possibly be normal. Soon all this must end, preferably with a whimper rather than a bang.

Since Malthus's death, demographic study has, of course, become a much more serious study. In 1798 when he first wrote his *Essay*, there was no census, and at his death, still in civil registration system in England; there was little enough data for other countries although Sweden was an exception. The principle of the life table was not properly understood, and no real analysis of fertility beyond some such crude resource as the ratio of births to marriages was possible.

Now we have models and theories and computer simulations. Internal migration gets treated in its own right and not as a mere residual (even that techniques give us better indications of migration projections are made in great detail and, thanks to computers, can be revised and various assumptions tested, with little difficulty).

There is no doubt that contemporary demography has advanced greatly, and we even know more about Malthus's own period than he did himself; for family reconstruction and other techniques give us better indication of the levels of fertility and mortality than Malthus himself could have gained from the raw baptism and burial figures that were published in his day and were obviously incomplete.

We know much more about population than Malthus did, but we cannot alter the fundamentals of the human condition. No one knows why fertility, in particular, rises or falls. The drop in British fertility between 1964 and 1977 was very marked and the effects are profound; but we do not really know why it began nor why it ended. The Soviets do not really know why fertility is three times as high in central Asia as it is in western Russia; no one really knows why it is far from uniform in tropical Africa.

There are thus plenty of unsolved problems in demography and Malthus's work is little help to us. But he did try to study all the data available and argue from there. In that sense, he was thoroughly modern, but too early to have much to work with.

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Harold Silver

Raising the standard on behalf of the non-standard

In 1979 some 48 per cent of entrants to public sector higher education were immature. Or at least, as a report of a continuing education group of the National Advisory Body told us in August 52 per cent were mature. But we know what we mean!

An American contributor to a discussion recorded in Zelda Gansson's recent *Liberalizing Education* says: "We should see the presence of working class people, minorities, women, and older students as an opportunity to test the belief... that a liberal education is for everyone." The constituencies, if not the liberal education, are a British agenda too, but there is interest in the phrase "older students". In Britain we constructed, alongside the history of "adult" education and students from the beginning of the nineteenth century, the "mature" student. We have lived, without much understanding, with the construct since the war.

Birkbeck College held a conference in 1967 to ask, among other questions about the university education of mature students, who they were. We never satisfactorily answered the question, and have scarcely noticed how anachronistic the description has become. It now seems to have become necessary to subdivide the concept. In this summer's report on the future *Demand for Education* the Department of Education and Science analysed statistics for "younger mature students". The point about the ossification of categories is that they become ridiculous.

Not that alternatives are easy to come by. The Americans, as higher education expanded in the 1960s, talked about the "new" students, categories previously under-represented in the system. In recent years the world has talked about continuing education, widening our established vocabulary of adult, extension and extramural. The NAB continuing education group tumbled about among references to continuing education students and mature students, equated the two, and produced a version of continuing education different from any known before. Teachers and other professionals have in service, and courses may have updating or refresher or other identities. But what about inside the core of higher education? Its undergraduate courses? "Mature" students, at least until the late 1960s, were rarely inside the universities. They were at Coleg Harlech or Ruskin College, for example, enjoying a "second chance" education. They were in Workers' Educational Association or university extramural classes, or in further education institutions. Some were in colleges which, in addition to the adult colleges, specialized in the "mature" student — those conducting London University external degrees, or some teacher training institutions; for instance — especially for servicemen after the war.

It is astonishing how recent is the assumption in Britain that mature students might penetrate the mysteries of full-time undergraduate learning. It is another world to look back at a Trades Union Congress statement on higher education of 1956, urging an expansion of university provision but entirely in terms of the "young person". In 1963, the year of the Robbins report (itself little interested in students other than school leavers) a historically noteworthy statement appeared in the *Times Education Supplement*. In it, Professor Corbett, senior tutor at the newly established University of Sussex, discussed "Early Leavers: Second Chance at Sussex". The university was intending to offer a university education to a "small number of the very ablest early leavers" — from the lower occupational groups.

Sussex was looking for the best ways of doing this; we should be most grateful for any suggestions that anyone can make to us". Twenty years ago, the question was not only who were the mature students, but where a university could find them.

Times were beginning to change. At the 1967 Birkbeck Conference a Minister of State talked of the "growing importance in this country of university education for the mature student". Someone warned that the universities must prepare for a "great influx of mature students already gainfully employed". The Committee of Vice Chancellors and Principals, however, was not listening. Its 1970 statement on *University Development in the 1970s* was concerned solely with "qualified candidates". The mature, second-chance routes still lay elsewhere.

Times have changed. Not that mature students in large numbers find the doors open and welcoming. In a new study of *Access to Higher Education* Norman Evans has looked at "non-standard entry" to Council for National Academic Awards degree courses, and finds that institutions committed to accepting such students admit relatively few in practice. But the emphasis on commitment is important. The UGCNAB statement in September defined the student constituency more widely than in even the recent past — especially in their joint statement, redefining access to higher education, not in Robbins terms of those "qualified" to enter, but as "those who are able to benefit and wish to do so."

Higher education is announcing its awareness of emergent processes, as well as its sense of recent loss. One of the most important pointers is probably that, towards "access courses", which in various ways offer bridges to the British version of the American "new" student constituencies of recent decades. If the thinking behind these has so far been concerned predominantly with racial and ethnic minority students, and to a lesser degree with women, there are extensions to be considered for the physically handicapped, including particularly the hearing impaired. Norman Evans's analysis of "non-standard entry" students reminds us that most are over 21, and do not have "normal" entry qualifications. Given what we know about the proportions of racial minority, women and working-class students entering higher education — and the unbelievably low proportion of Britons who enter higher education at all — we are at the point where the old questions about who are the mature students, and where they are to be found, can be fully interested; to be replaced by more up-to-date questions. "Older" students may be just one formulation of new constituencies, removing the implied offence to the "immature".

What the UGC, the NAB, the CNA, the universities, the public sector institutions, are now talking about is a reinterpretation of higher education and its population, and a more developed understanding of post-school and continuing education. Some of the new definitions, and the new efforts to implement them, perhaps we might remember to replace the vocabulary of the "mature" student by something more appropriate.

Through the looking glass

Peter Collison on surveys of student opinion of teaching



In 1968 the Government's Board for Prices and Incomes made a sensational suggestion. It recommended that a university lecturer's pay should be determined partly by students' opinion of his teaching as revealed in questionnaire surveys. Although no university seems to have followed this recommendation in respect of pay one effect of the report was to encourage the use of surveys to determine response to teaching provision.

The early surveys were generally successful and beneficial. Many matters which had been overlooked were brought to light and most of those who saw themselves reflected in the survey mirror made discoveries which although not always welcome could usually be put to good use.

The conduct of surveys and the interpretation of their findings is not easy and the early surveys ran into a number of difficulties as the movement to study student opinion gathered momentum. But problems of method and the drafting of questionnaires, although teasing and not susceptible of a perfect answer, are usually manageable given attention and experience.

The board probably had something of this in mind when it cautioned that the survey exercise needed to be undertaken "carefully". But the surveys of student opinions in the late 1960s gradually found themselves confronted by a different range of problems which the board does not seem to have anticipated and which proved rather more intractable.

One problem which quickly surfaced was what to do with the findings of these inquiries. As they came to be conducted across a wide range of teaching programmes, they ceased to be the narrow concern of one teacher and one particular class and became increasingly public.

The more lively and adventurous departments where the survey method was adopted earliest and with the greatest enthusiasm and encouragement of the discussion and dissemination of findings. But it was soon found that although this was often salutary and beneficial that it could also sometimes have less welcome consequences.

Departments and faculties are inevitably in a certain rivalry and in competition for resources. Departments which publicised the results of opinion surveys, much of which were inevitably critical, found that they were exposing themselves to the danger of being condemned for any shortcomings revealed. Instead of being praised for openness and encouragement of healthy criticism.

It came to be realised that reputations of departments and the faculties of which they form part, could be damaged by this publicity in the eyes of authority and their positions in the weakened. Heads of departments and deans began to see surveys in a rather different light.

A substantial movement towards wider representation in university government was a feature of the late 1960s and as a result students were accorded places on senates and other bodies, and committees of staff and students were also formed to provide for the expression of views at the level of forward to serve on these bodies were keen and eager for improvement and reform and they welcomed surveys as an obvious means to that end.

But here again it was not always events: sometimes took unexpected turns. Surveys provided for a direct expression of student opinion independent of elected student representatives. It sometimes happened that opinion as revealed in surveys was divided, or complicated, or in one way or another very helpful to representatives seeking a clear mandate for particular line of action. Representatives were, therefore, inclined to engage in discussion of issues raised in a survey before the questionnaires were completed in the hope of influencing opinion in ways they judged would be helpful to the student interest as they saw it.

It was, in fact, usually unnecessary for representatives to make arrangements for discussion because, as surveys could be disturbing in other ways. University departments are

veys were established, the appearance of questionnaires became a predictable event in the timetable and the practice of informally discussing possible responses to them beforehand arose spontaneously. But there was some feeling, too, that discussions of this sort rather changed the character of surveys, and such discussion offended a few who thought that influences brought to bear through prior discussion were illegitimate and undermined the exercise which should properly be concerned with what they described as "individual" opinion.

As one student critic indignantly and perhaps rather unfairly explained "results are fixed". In reply, prior discussion was defended on the ground that "automistic" views formed by each student in isolation were less significant than opinions of a more corporate character arrived at in an informed way after discussion and with guidance from elected representatives and also, perhaps, members of staff.

Even without the promptings of discussion it seems the students may have anticipated the likely consequences of survey findings and adjusted their answers to certain ends. It was noticed that the work of new young teachers tended to attract particularly favourable responses. Perhaps their teaching had freshness and novelty, and being usually close in age to their pupils they may have been more acceptable than older colleagues.

But informal feedback did not always support this interpretation. There were suggestions that students were aware that new members of staff, or those on temporary or part-time appointments, still had reputations to establish and were still on probation. The sympathy which this insecurity aroused shifted the basis of assessment from purely objective criteria to others of a more subjective and empathic kind. Although this was generous and generally appreciated it had the effect of undermining confidence in surveys as an objective measure of teaching quality.

Paradoxically, teaching surveys also created problems to the extent that they were actually objective. It has to be recognized, although this is usually done in private, that teaching ability is unevenly distributed. The lecturers who had the initiative first to employ surveys were generally already among the better teachers and were those capable of applying the results and benefiting most from them. The effect of early surveys was, therefore, to improve the better courses and by so doing to sharpen the contrast between these and the remainder which were less successful.

The improvements which did take place, however, created expectations in respect of all courses which were not always realised. The survey method ran into a problem something like diminishing returns as it was applied to courses where only lower levels of improvement were effected through the application of the findings.

The growing contrast between courses and teachers at the extremes of the range increased dissatisfaction with the poorer ones. The effect was heightened by the experience of completing questionnaires which exercised the minds of students on the question of teaching effectiveness in a very direct way, and turned their attention to details of the provision made for them which previously may have escaped their attention.

The overall result was to produce a more critical and sharper attitude to courses and members of staff, at least, to some. This change may have been to the general advantage and it was certainly welcomed by many, although it was also recognized that some cases less comfortable than they had been.

Surveys could be disturbing in other ways. University departments are

small institutions and are tightly bonded. Relationships between staff are delicately balanced into a fine web of understanding. While irredeemable shortcomings in colleagues may be recognized and passed over in silence, support is quietly given to colleagues who are aging, or who are temporarily less than their best through illness or the burden of some domestic problem. In addition, there is an informal status system, which recognizes past and potential as well as present success, and qualities and contributions to the life of a department, which although real are not quantifiable or even discernible through the survey method.

Highly publicised survey results, focussing on teaching alone, often burst into this delicately balanced system with results less dramatic, no doubt, but in some ways not unlike those that Gregory's Werle's intrusions had on his father's household in Ibsen's *The Wild Duck*. Criticisms of some members of staff who, although not teaching as successfully as colleagues, were certainly doing their best and were often working under difficult personal circumstances, were felt to be wounding or unfair, and rather pointless in that little or nothing could be done to bring about an improvement, at least in the short span of time which a single generation of students is concerned.

As these various difficulties emerged there was inevitably a negative reaction. But it did not result in surveys being abandoned. They continued to be employed widely and are now established as a permanent feature in teaching assessment and staff-student communication.

Experience in conducting surveys and applying the results has, however, led to a recognition of their limitations and to their use in a more cautious and informed way. The early enthusiasts and the board, when it made its recommendation, probably had in mind as an example surveys of large populations such as in opinion polls or in market research where the method has long been used successfully to determine reactions to various products and services.

These models are not entirely appropriate to the intimate worlds of university departments and faculties. Here, surveys, especially if employed frequently, can become absorbed into the ambience of the particular situation, and the results become more a reflection of the values and concerns of the local social system than an objective response to teaching provision.

It is also now generally acknowledged that surveys, even if successful as an objective research exercise, are not a panacea for reform and that revealed shortcomings are not always remediable, at least in the short term. There is no point in exposing defects and suggesting improvements if in practice nothing can be done. And given publicity, survey findings can in some ways have damaging results.

Experience suggests that careful thought needs to be given to areas it is proposed to survey and it is sensible to select only those where fruitful change can be realistically anticipated. Ideally surveys of student response to teaching should form part of a broad and considered programme of staff development. Questionnaire surveys, then, continue to be used although it is recognized now that they have limitations and that their application is more difficult than perhaps the National Board for Prices and Income and the early enthusiasts for the survey method recognized.

The author is professor of social studies in the University of Newcastle upon Tyne. A longer approach to this subject can be found in Vol 10 of the *Durham and Newcastle Research Review*, Autumn 1984.

by Nevil Johnson

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The Cabinet Secretariat has a good claim to be regarded as the most important institutional innovation of this century in the structure of British government. We owe it to the intervention of that unique political outsider, David Lloyd George, with a young Royal Marines officer, Maurice Hankey, who had since 1912 been secretary to the recently established Committee of Imperial Defence.

Lloyd George discerned that Hankey would be able to give him and his War Cabinet the kind of administrative support which was essential if disaster was to be avoided. Appointed as Secretary to the War Cabinet in 1916, Hankey rapidly built up a secretariat which soon serviced the whole Government. In 1919 he was confirmed as Secretary to the Cabinet and continued as Secretary of the revived Committee of Imperial Defence in 1920. He was to hold these offices jointly until retirement in 1938. This long tenure had the effect of fusing the man who designed the Cabinet Secretariat with the institution itself.

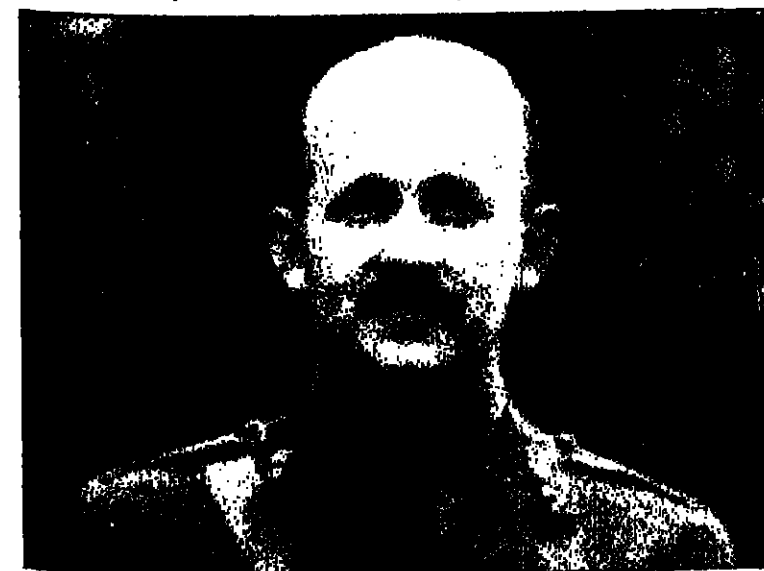
Yet Hankey's impact on British government transcended his individual association with the Cabinet Office, for the organization which he moulded came to be regarded by those served as both normal and indispensable. When he departed the succession (and the division of Hankey's triple role as Secretary to the Cabinet, Secretary to the CID and Clerk of the Privy Council) presented no problems: the Rolls Royce machine moved smoothly forward under the control of new men. Like his rival, Warren Fisher, Hankey had an instinctive grasp of how to build an institution which would last: of his success in that regard there can be no doubt.

Professor Naylor of the State University of New York at Buffalo provides in this scholarly and carefully researched study a full and perceptive account of Hankey's achievements as

head of the Cabinet Secretariat from 1916 to 1938. This can be treated as a self-contained period embracing the founding, nurturing and consolidation of the institution, and it is one of which virtually all the relevant documents are now open to the historian. Professor Naylor does, however, have a subsidiary theme, announced in the introduction, that of the custody of Cabinet secrets. This is explored when relevant in the body of the work and provides the *leitmotiv* for the last chapter, which reaches out to more or less contemporary preoccupations.

Professor Naylor's unifying theme is that of the man and the institution. Hankey put an indelible stamp on the Secretariat and identified himself without reserve with the institution he fashioned; yet as time passed it acquired a life of its own, despite Hankey's possessiveness toward it. In exploring these two facets of the Secretariat's formative years, Professor Naylor achieves a discriminating characterization of Hankey as an individual which brings light and shade to what might otherwise have been a somewhat dry piece of institutional history. Anybody writing about Hankey and his work enjoys, of course, an unusual advantage, since he was one of those rare officials who kept a diary (a habit far more common in his day than now). Though never published in full, the diary was drawn on extensively by Roskill in his biography of Hankey and has been consulted thoroughly by Professor Naylor. This source alone helps him to bring Hankey to life, to illuminate the problems and personalities he confronted, and to provide in the narrative a genuine historical perspective on his achievements.

The Cabinet Secretariat as built up by Hankey had (and basically continues to have) two principal functions. It provided secretarial services for the Cabinet and its committees, embracing both the efficient organization of meetings and record-keeping. In short, it became the Cabinet's memory. Secondly, it served as an instrument of executive coordination: it holds the Cabinet system together by providing the basis on which executive action follows where divergent decisions are taken. Hankey had a remarkably clear grasp of these requirements, as well as the ability to translate them into reality. This demanded diplomatic



Hankey as Secretary of the War Cabinet in 1917

Reforming procedure

Commons Select Committees: catalyst for progress? edited by Dermot Englishfield
Loughman, £9.95
ISBN 0 582 90260 6

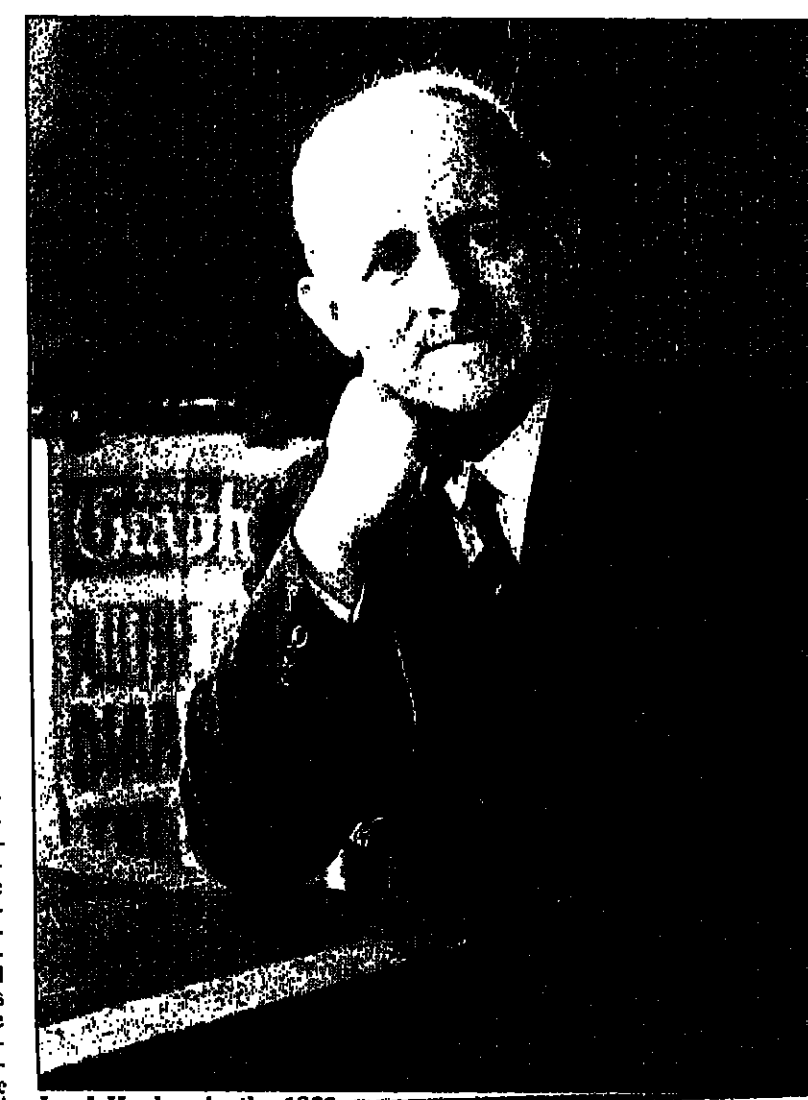
In 1979 the House of Commons replaced most of its existing select committees by 14 new ones, charged with overseeing the expenditure, administration and policy of government departments and their "associated bodies". The then leader of the House, Norman St John Stevas, spoke of these changes as "the most impor-

tant parliamentary reforms of the century" intended to "redress the balance of power to enable the House of Commons to do more effectively the job it has been elected to do".

The truth is, however, that procedural reforms can by themselves do very little to alter "the balance of power". Henry Fairlie once observed, just a shade unkindly, that the creation of committees in Parliament "is an attempt to fashion mock political institutions within a constitution which cannot tolerate real ones". Commons select committees, unlike their counterparts in the United States Congress, work in the straightjacket of an executive dominated system. Their main role is to extract information from those in positions of power so as to raise the level of public debate, rather than to play any direct part in deciding policy and formulating legislation. The

BOOKS

The influence of a civil servant



skill and sensitivity — you do not successfully coordinate those in whom executive responsibilities are vested by bullying them — and the intellectual capacity to achieve lucidity, compression and subtlety in the use of the written word. Not the least of the merits of this book is the manner in which Naylor illustrates the interplay of these complementary qualities, showing how he was both a supremely efficient man of action, an indefatigable organizer and administrator, and at the same time a curious kind of literary man, keenly conscious of the fact that finding the right form of words is usually crucial for securing a political decision.

The basic functions of the Cabinet Secretariat did, however, have a further implication for the role of its chief. They put him in the position of principal adviser to the Prime Minister, and this required him to express views on policy questions which in turn might undermine the reputation for neutrality on which the success of the coordinative role so much depended. Even during the very early years Hankey did not hesitate to offer his advice on crucial political issues, more especially if they concerned the conduct of the war and military operations. Similarly, he was active at Lloyd George's elbow during the Paris Peace Conference. Yet he managed to discharge these sensitive political functions in a manner which neither identified him personally with Lloyd George nor roused the hostility of other leading members of the Coalition Government. Though there were tense moments on the departure of Lloyd George when both Hankey and his creation were under attack, the Cabinet Secretariat and its chief survived. And as gradually Hankey survived the departure of more and more of the Cabinet and its committees.

As a matter of course that the Cabinet Secretariat should be regarded as the archetypal example of that peculiarly British species, the powerful bureaucratic rat, who is also a neutral and detached politician. This is the essential heritage of Hankey, achieved in large measure by his mastery of "the indirect approach", a technique which is abundantly illustrated throughout this volume. Even today it is doubtful whether many professional politicians seriously wish to abandon the model he bequeathed to them.

There are, however, one or two weaknesses in this study which ought to be mentioned. Generally, it is well written, but the choice of words is occasionally odd, suggesting either poor proof-reading or certain blindness in the author's command of the kind of prose which would commend itself to the Cabinet Office. Then there is some thinness in the treatment of the Secretariat as an organization. The focus is so much on the top of the Office, Hankey and his closest associates (Jones and later Howells), that the rest of the Office gets relatively little attention. The evolution of the system of secondment might have deserved a bit more space, there might have been more on the relations between the Secretariat and the departments, the coordinative functions might have been treated more fully and in relation to their development over time. However, it must be admitted that the evidence for such a tracing

of administrative development is elusive: the records and the diaries understandably focus on the top people.

Finally, there is the concluding chapter on the custody of Cabinet secrets. This is an epilogue in which Professor Naylor discusses the continuing effects of the rules and procedures laid down by Hankey to guarantee the secrecy of Cabinet papers. He examines some of the difficulties and controversies produced by the provisions safeguarding access to Cabinet documents, and as gradually Hankey survived the departure of more and more of the Cabinet and its committees.

It seems to me that it was probably an error of judgment to mix up history and contemporary political argument like this. Professor Naylor is, of course, right to examine in some detail (as he does) the steps taken by Hankey to ensure the confidentiality of Cabinet records, and to emphasize the extent to which he provided a model which strongly influenced attitudes towards the custody of official in-

formation throughout Whitehall. But it does some violence to the structure of the book to bring it to a close with a necessarily selective account of events and changes occurring long after Hankey left the stage. It would have preserved the design and symmetry of the work better had it been rounded off with a general assessment of the man and the institution he created. Within this framework there would have been space for a summary of Cabinet preservation of Cabinet secrets, no doubt footnoted to indicate such major changes in the rules as have occurred in recent years. Instead, the final chapter makes us almost lose sight of Hankey and his achievements (except for the sad and ironic story of his vain efforts to secure official approval for publication of his war memoirs), and intrudes on the reader too many considerations which, strictly speaking, have no place in a work of historical reconstruction.

The blemishes just referred to do not, however, significantly diminish the interest and importance of this study. Professor Naylor has vividly demonstrated how profound and lasting was the impact of Hankey as a civil servant, and at the same time shown how fascinating a work of administrative history can be.

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groups have a unique opportunity to put their own views on the public record, whence they may "enter the bloodstream" of political debate.

One must not exaggerate the importance of committees. Decisions are made in Whitehall (and Brussels) rather than at Westminster and sensible outside observers and lobbyists will be well aware of this fact. But select committees are valuable devices for enhancing the public accountability of public bodies (including public corporations and quangos) and are significant contributors to "open government". This book gives much useful guidance to the uninitiated.

Gavin Drewry

Gavin Drewry is reader in social administration at Bedford College, London.

BOOKS

Counting pennies

The Account Books of Jonathan Swift transcribed with an introduction by Paul V. Thompson and Dorothy Jay Thompson
 Scholar Press, £30.00
 ISBN 0 85967 570 X

"A wise man", Swift declared, "ought to have money in his head, but not in his heart". Swift's friends however were not always convinced that he observed the separation recommended in this excellent maxim. Throughout his life Swift took a perverse delight in calculating the precise monetary value of all social activities and recreations. On one occasion Alexander Pope and John Gay visited him, having already dined. Swift immediately insisted on giving them two shillings and sixpence apiece, which he computed to be the cost of a couple of lobsters, a few tarts and a bottle of wine which he would have had to provide if they had come for a meal. Some years later, when Gay died, Swift shocked his more sentimental companions by declaring that he consoled himself on the loss of friends "as I do upon the loss of money, by turning to my account-book and seeing whether I have enough left for my own support".

It is hardly surprising therefore that Swift should have kept meticulous financial records in a series of annual account books. In these he detailed every last item of income and expenditure, from the cost of his laundry to the odd coppers he won or lost at cards; and from the amount he spent on his horses to the amount he gave to beggars in the street. Unfortunately only nine of these annual account books are known to survive, seven of which are to be found in the Forster Manuscript. Over the years, the accounts of Swift have been added to and altered, and these books to add colour and authenticity to their descriptions of Swift's domestic circumstances, but not until Irvin Ehrenpreis's massive study of Swift, *The Man, the Works and the Age* was any systematic attempt

made to assess the full significance of the information contained in these small unglamorous volumes. Now at last Paul and Dorothy Thompson have spared other Swift scholars the considerable labour of deciphering Swift's crumbled handwriting and decoding his enigmatic abbreviations by publishing this clear, and as far as I have been able to check, accurate transcription of the account books. It goes without saying that this is not a work for the general reader; but anyone with a serious interest in the study of Swift's life and works owes a debt of gratitude to the Thompsons for their painstaking scholarship. For, read in conjunction with Swift's correspondence or with his *Journal to Stella*, the cryptic figures and jottings presented here offer a number of clues towards the resolution of some still contentious points in Swift's biography. Thus the account book for 1712 provides evidence of the confusion in Swift's feelings, torn between his loyalty to Stella and his growing interest in Vanessa. Whereas in his daily *Journal to Stella* he often reports briefly that he dined "with a friend", the account book reveals more candidly "Wine, Van's is 6d".

In their lengthy introduction to this transcription, the Thompsons indicate many of the areas of Swift's life that are touched on by the account books. Their scholarship is patient and their conclusions are cautious and reserved. They present their arrays of facts and figures as a series of notes and queries, and resist the temptation to draw any general inferences about Swift's attitudes to money, charity or investments. They reveal, for example, that the annual £50 allowance which Swift paid to Stella and to her companion Rebecca Dingley, was not given in the form of a regular "standing order", but rather was made up of dribbles of cash "ranging from three shillings to five pounds" handed over as required. Swift's fondness for healthy outdoor pursuits such as walking and riding is confirmed by the considerable amounts that he spent on shoes and horses. By contrast he appears to have spent relatively little on fine clothes. His tastes in food too were fairly plain, though he considered decent wine a necessity. "Good wine is 90% in living in Ireland," he told a friend. "they readily confess as much." At the start of every quarter a payment to "JB" (this they safely assume to be Joseph Beaumont, the general dealer in Trim who supplied Swift with house-



A watercolour and ink drawing executed by the American artist Edward Hopper around 1920. Taken from Gall Levin's book *Edward Hopper as Illustrator* (Norton, £12.95).

hold necessities. Yet these regular payments to Beaumont appear to have nothing to do with specific supplies. "What were they for?" the Thompsons ask.

This is just one of many questions raised in this book which are left for other scholars to resolve. In fact the main value of this volume is as a research tool, a reference work to be analysed and queried by others. But even a cursory reading of the information contained here gives a rich sense of Swift's daily activities and of the authentic texture of his life, thus: Won at piquet with Van, 6d; lost at ombre with Van, 6d; a gift to a poor woman, 2s 8d; cherries, 1s 6d; oysters, 3d; seeing moving picture, 2s; coal, 7d; tobacco, 2/6. Reading through these careful columns of figures one is reminded that Swift's greatest political campaign was waged in defence of halfpennies.

David Nokes

David Nokes is lecturer in English at King's College London.

Gently partisan

Middlemarch
 by Kerry McSweeney
 Allen & Unwin, £15.00 and £5.95
 ISBN 0 04 800031 0 and 800032 9

Who is to say, Kerry McSweeney asks, "that in its more mild-mannered way my own discourse is not as *parti pris* as more aggressive and revisionist discourses?" He is right: his book is both mild-mannered and partisan - happily so because it will determine for many students their sense of *Middlemarch* country, a territory it surveys for the most part very well indeed. The chapter on the novel's intellectual background is admirably paced; I cannot envisage a better introduction to the social context of the novel; there are some astute analyses of character and a useful summary of the novel's

critical history. McSweeney's gentle partisanship is most effectively evident in his determined effort not to explain away the idealization of Dorothea, and in his spirited endorsement of Henry James's much-debated assertion that *Middlemarch* is a "treasure-house of details" but "an indifferent whole". "Since this is the unavailing result of the novel's historical, philosophical, psychological and moral richness," he asks, "who would have it otherwise?" Thus what students can most usefully learn from this book is the freedom that comes from simply accepting the flaws, incoherences, failures and confusions of a great text.

There are two matters, however, about which I am not entirely happy. The first is the book's continual references to a male "narrator". Of course there is a distinction to be made between Marian Lewes and the teller of George Eliot's tales, but that distinction does not involve, at least in the case of *Middlemarch*, a severing of identity. If Ladislaw is idealized, he is idealized by George Eliot, not by a "narrator" in trousers. If the description of the "roar that lies on the other side of silence" is followed by a sententious observation about the "quickness of us" walking about "well wadded with stupidity", the responsibility for the sententiousness - McSweeney calls it "a gratuitous below" - is again hers. Extravagant idealizations (if such they be), intrusive didacticism, awkward stylistic shifts - these are the responsible choices of a living mind and a writing hand.

This brings me to my second disagreement with McSweeney. He rightly emphasizes George Eliot's sense of perspectival relativity, and the importance to her of truth of feeling. This is why he writes so well about Dorothea's sensuality. But he ignores the problem of choice in a deterministic text. He fails to see that Lydgate makes a choice at the end of the novel which Casaubon or Bulstrode could never have made - to care for his wife. He also fails to discuss Dorothea's decisions, to continue Casaubon's work after his death (a promise happily pre-empted) and to choose a husband for herself *contra mundum*. Decisions, by the author and by her characters, are the very soul of *Middlemarch*.

William Myers

William Myers is senior lecturer in English at the University of Leicester.

Beyond the text

Interpretation, Deconstruction, Ideology: an Introduction to some current issues in literary theory
 by Christopher Butler
 Clarendon Press: Oxford University Press, £13.50 and £5.95
 ISBN 0 19 815792 0 and 815791 6

Christopher Butler's study is not at all the kind of handbook guide to contemporary critical theory which has emerged in recent years as an independent category of book-making. It is a sustained and admirably argued defence of a position the author identifies as "radical-liberal": neither deconstruction nor traditionalism, but something more interesting in the complex middle ground between the extremes.

The argument begins with a thorough examination of the distinction between "literal" and "metaphoric" language, a distinction whose elimination is of central importance in the work of Jacques Derrida and the late Paul de Man. De Man maintained that all texts simultaneously assert and deny the authority of their own rhetorical mode. Thus Rousseau's *Confessions* promise the literal truth, confession, but are at once caught up in the metaphoric shifts and dualities of language that makes their literal truths inevitably come unstuck. Derrida similarly argues that while literal language seems to offer us access to a world of stable facts, the mobility of language is too intense to allow such a stopping-place. Against these analyses, Butler asserts that the distinction between literal and metaphoric language is not so much an intrinsic fact about language, considered globally and in essence, as it is a pragmatic distinction made on the basis of use. Literal language makes what the speaker's

interests and forms of life propose and assume as the reality, while metaphoric language does not.

Where De Man and Derrida invoke Language, Butler speaks of language-games, backed by the actual needs of speakers and by the full force of social practices and goals. From this broadly Wittgensteinian position, he reconstructs a model of reference whereby the reference literature makes to the world is fluctuating in nature. Since, in his view, the literary text is not by itself sufficient to help readers to decide on a context for interpretation, the understanding of texts necessarily alters according to the norms and values brought to bear upon the text by its readers. Some groups will find it natural to relate texts to their original historical contexts, other will find it useful to read texts, for example in the light of ethical discourse. Butler defends the validity of such approaches, as of any critical approach which observes - as in his view it must - some extra-textual norm, some set of social usages and goals.

The argument is liberal, in that the critic is in principle free to embrace the norm (and social group) of his choice; and radical, in that Butler asserts no limitations in theory which the text of itself would impose on that freedom. Here one might have expected more discussion of the argument that the literary text is not necessarily so conventionally passive before the discourses brought to bear upon it: the classic text may be particularly amenable to all parties, but even the classic has power to disturb, alter, move, alarm, subvert, and in general to impose itself upon the public.

But the omission is minor. This is a lucid, persuasive, and brilliant performance, which anyone interested in raising the level of contemporary critical discussion would do well to read.

Norman Bryson

Norman Bryson is a fellow of King's College, Cambridge.

BOOKS

A rosy picture

Soviet Political Scientists and American Politics
 by Neil Malcolm
 Macmillan, £25.00
 ISBN 0 333 30931 6

During the course of the First World War and the Russian Revolution, Lenin laid down what would become "the" for Soviet analysis of politics in the western world. In *The State and Revolution*, for example, he wrote of the transformation of monopoly capitalism into state-monopoly capitalism, involving "an extraordinary strengthening of the 'state machine' and an unprecedented growth in its bureaucratic and military apparatus in connection with the intensification of repressive measures against the proletariat." If such development was already apparent to him in 1917, what would he have said about the "military-industrial complex" discerned by President Eisenhower forty years or so later?

This is the kind of question that Soviet political scientists find necessary to consider when examining American politics. Many of them are to be found in the prestigious Institute for the Study of the USA and Canada, which was set up during the Brezhnev years. And so, the institute's monthly periodical, *SSIA: ekonomika, politika, ideologiya*, first published in 1970, is an especially valuable source for serious researchers. However, it is a measure of the widening Soviet interest in the all-important subject that Neil Malcolm has been able to use monographic material of considerable quantity and variety outside the pages of *SSIA* as well as within them.

In his book he argues that, more often than might be expected, Soviet political scientists are able to demon-

strate insight and understanding. They are helped, in his view, by their intelligent reading of the best recent American authorities on the subject, David Riesman, C. Wright Mills and others. He also suggests that the train of events in the sixties and seventies has persuaded them to make at least guarded revisions in the observations of their founding father. For them, the part played by the power of public opinion in bringing about an end to the war in Vietnam showed that the proletariat was able to counter the "repressive measures" levelled against it. Some presidents, for example J. F. Kennedy, were able to raise their vision above the powerful conditioning influences of the "state machine". But at times, their own red-tinted spectacles give the Soviet observers a rosier picture of the world than any evidence would seem to warrant, when they claim to see that the new Soviet constitution "will exercise a great influence on many political and ideological processes in the whole world", or

when they maintain that the American public is critical of the CIA principally because of its involvement in cold war actions against the Soviet Union.

Does the outlook from the Soviet ivory tower influence that from the Kremlin? Not much, according to at least one defector, who revealed that one of the most common complaints of those working in the Institute for the Study of the USA and Canada is that their copious reports and memoranda too often find their way directly to the wastepaper baskets of top party and government officials. Some American experts on Soviet politics may have a certain sympathy for this grievance. They may also see in the fact that the institute's director, G. A. Arbatov, does seem to be able to catch the most privileged ears a clear parallel to the influence exerted in the USA by such individuals as Zbigniew Brzezinski and Richard Pipes.

Generally speaking, as in many aspects of the Soviet-American confrontation, there is much to be said for

attempting comparisons. Concepts of "totalitarianism" may not be as useful as those of "state-monopoly capitalism", but they are still too often to be found in undiluted form in some American work with serious academic pretensions, which also can be found condemning the Soviet Union and all it stands for with a few out-of-context quotations from Lenin in 1917. Neil Malcolm argues, if not completely persuasively, that the best Soviet work transcends such a restrictive framework.

Such a development would certainly be welcome in Soviet, as well as in American, political science. In both cases, however, if present appearances are not deceptive, decision-makers would be less than likely to consider it with the care that it would deserve.

Paul Dukes

Dr Dukes is reader in history at the University of Aberdeen.

is greatly helped by appendices which contain a chronology of party history, a list of socialist participations in government, the electoral record, the strength of factions within the party and their attitudes on policy matters, and short biographies of the leading figures in the party.

The socialist electoral successes in 1981 will be constantly reinterpreted in the light of changing political circumstances but the provisional conclusions drawn in this book are sensible, although rather obvious. The socialists are in a virtually indestructible parliamentary position until the elections of 1986 and even then a call by Mitterrand for a sympathetic parliamentary majority may still, despite gloomy prognostications, be effective. The communists have lost badly since they are unable either to maintain themselves as an uncompromised party of opposition or, because of lack of parliamentary seats, to influence on important issues, the conduct of governments. By contrast, the socialist party has been able to establish a reputation as one of the more left-wing of the major socialist parties of Europe and more open to themes such as decentralization, autogestion, feminism and ecology. The compromises of power - resulting in the abandonment of inflationary, anti-unemployment measures, in painful shedding of labour in manufacturing industry and, more recently, in the dropping of proposals to integrate the independent, mainly catholic, schools in the state system - place strains on the party and give the right the basis for a damaging counter-attack.

It is an open question whether the socialists can retain a basis of power in the country, both in terms of the acquiescence of significant organized interests, such as the trade unions, and in mass electoral support. This book provides a useful and workmanlike contribution for all those who wish to reflect on the recent record and the prospects for the French socialist party.

Malcolm Anderson

Malcolm Anderson is professor of politics at the University of Edinburgh.

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THE SPECIAL BOOK NUMBER NEXT WEEK SOCIOLOGY

BOOKS

A radical force

Roots of Rebellion: workers' politics and organizations in St Petersburg and Moscow 1900-1914
by Victoria E. Bonnell
University of California Press, £30.80
ISBN 0 520 04740 0 and 051149

In western Europe and the United States trade unions have served both to extend the power of workers in industry and, at the same time, to incorporate them into the capitalist order. In Russia this did not happen. Trade unions, which were legalized in March 1906, served not to promote the interests of workers within the existing economic and political institutions, but rather to articulate a radical challenge to those institutions. Victoria Bonnell sets out to understand how Russian trade unions became vehicles for revolutionary rather than reformist aspirations.

She begins by analysing the social characteristics and material conditions of Russian workers on the eve of the 1905 Revolution, and proceeds to examine the birth during that tumultuous year of an organized labour movement, as represented by factory committees, trade unions and so on. Only the trade unions survived the crushing of the revolutionary movement in December 1905, but in the course of the next two years they made impressive strides. After the Stolypin "coup d'état" in June 1907, the trade unions went into decline, as economic depression and political repression set in. Only in 1912 did they revive, as the economy picked up and as the government relaxed its opposition to them. Between 1912 and the outbreak of war, however, against a background of rising working-class militancy, trade unions became radicalized and their cautious Menshevik leaders were replaced by Bolsheviks.

Bonnell shows convincingly that it was skilled men, possessed of a strong identity as urban workers, rather than the deracinated peasant workers who were in the forefront of labour activism and organization in both 1905 and 1912-14. The sharing of a skill provided the basis of collective association, and artisans, whom historians have woefully neglected, proved as keen to unionize as factory workers. Bonnell argues that skilled workers revealed as much of a craft-consciousness as a class-consciousness and avers that it was workers in small enterprises, rather than in large factories, who were most likely to join trade unions.

In a compelling passage Bonnell suggests that the construction of the labour movement was premised upon a double set of claims: on the one hand, workers claimed the rights of citizenship, both individual and collective, as a means to attain material betterment and human dignity; on the other, they claimed control of key aspects of decision-making within the workplace - and by extension, within society - thus subverting the movement for workers' control of 1917. She argues that it was the inability of workers to pursue these claims that caused them to turn away from the Mensheviks in 1917-14. The sudden radicalization of the unions was not a response to state repression, but, to a "situation fraught with contradictory tendencies": in which workers were allowed to organize yet not to reap any significant benefit from their organization.

My main criticism is that the book is not as comprehensive as its subtitle suggests, and the overwhelming conclusion upon trade unions introduced what purpose to be a comprehensive account of workers' politics and organizations. As the account by a western historian of the trade union movement, however, the book is of major importance. It is researched with exemplary thoroughness and its arguments are subtle and persuasive. Finally, the author displays an admirable capacity to combine sociological analysis with detailed treatment of historical developments.

S. A. Smith

Smith is senior lecturer in Russian history at the University of Essex.



The historian Arnold Toynbee, a portrait from a centenary study of Toynbee Hall, the Universities' settlement in the East End of London which was named after him. *Toynbee Hall: the first hundred years* by Asa Briggs and Anne Macartney was published on Tuesday by Routledge & Kegan Paul at £15.00.

Growing up to be president

The Log Cabin Myth: the social backgrounds of the presidents by Edward Pessen
Yale University Press, £15.00
ISBN 0 300 03166 1

Most Americans believe two somewhat contrary propositions, that every American-born child can become President but that only millionaires do. No one to date has studied the historical evidence behind these propositions as closely as the author of this new book, a general survey of presidential backgrounds and social standing of presidential families. Professor Pessen is an historian long interested in the distribution of wealth in America and he brings considerable expertise to the task.

He opens by discussing the circumstances of presidential families and suggests that presidential forefathers and importantly their wives have always come from the successful classes, those well endowed with the world's goods and highly regarded by others for their wealth and status. Professor Pessen accepts that American society can be divided into classes and follows those social scientists who have distinguished six: the upper upper; the lower upper; the upper middle; the lower middle; the upper lower and the lower lower. According to figures he quotes only 1 per cent of the American population is and has been in the upper upper class, 2 per cent in the lower upper and 9 to 10 per cent in the upper middle. The lower three classes have comprised the remaining 87 per cent. It would be easy enough to quibble with the precision of these figures and to suggest that they will have changed over time but in general they are acceptable.

According to Professor Pessen 11 presidential families have been of the upper upper class, most lately that of Franklin D. Roosevelt. Two, including that of John F. Kennedy, came from somewhere between the upper upper and lower upper classes. Three families were of the lower upper class; six of the "plateau" between the lower upper and upper middle classes. Below these, the upper middle class has produced 10, among them those of George H. Bush, Gerald R. Ford and Jimmy Carter, so that fully 32 pres-

idential families out of 39 have come from the social classes that comprise around 12 per cent of the total American population. Three more families, those of Abraham Lincoln, Dwight D. Eisenhower and Ronald Reagan came from the borders between the upper and lower middle classes and thus only three, including that of Richard Nixon, have come from the lower middle class, and one, that of Andrew Johnson, Lincoln's successor on his assassination, from the upper lower class. The lower lower class has failed to produce a presidential family.

Pessen does not believe all this to be the result of chance. He argues that the political parties and the men that run them have deliberately failed to seek men born in log cabins, rather choosing men with "sound" ideas, those candidates who will not attack the upbringings, beyond the reach of 98 or 99 out of 100 of their contemporaries. At this point the study turns to a discussion of the implications of such findings for American democracy, not surprisingly deploring what it has discovered. In the "true" social democracy, it states, "one would expect to find the highest office occupied by men and women who represent a cross section of the society, socially and occupationally". The work does not discuss the implied alternative at any length and some readers may balk at the many begged questions. Perhaps Professor Pessen should at least have considered if there are implications in the low family status of the two presidents who have been threatened by impeachment. Other readers may dislike the way in which all presidential families are placed together in a single set without regard to changing external circumstances. Nevertheless the work brings together much disparate factual information and argues its case strongly. It also surprises in demonstrating how little is known of the ancestry of modern American presidents.

R. A. Burchell

R. A. Burchell is senior lecturer in American history and institutions at the University of Manchester.

BOOKS

Change in religious beliefs

The Quest for Eternity: an outline of the philosophy of religion
by J. C. A. Gaskin
Penguin, £2.95
ISBN 0 14 025238 2
God, Jesus and Belief: the legacy of theism
by Stewart R. Sutherland
Blackwell, £15.00 and £5.95
ISBN 0 631 13548 0 and 13591 X

J.C.A. Gaskin's book is meant to be a defence of theism, the view that the truth of Christianity depends on the validity of certain metaphysical theories. Christianity "cannot be deduced from its metaphysics without disaster... If the theistic metaphysics is incoherent or false, Christianity is an agreeable picture of an unreal fact". The metaphysics in question is found in the traditional "proofs" of the existence of God: ontological and cosmological arguments, arguments from religious experience, theodicies, the alleged dependence of morality on religion. Gaskin examines these arguments and finds them wanting in ways which, by now, we are familiar. He concludes "that theism may be coherent, but that the evidence that it is true is only enough to make it a weakly reasonable belief".

Another fundamental claim of Gaskin's book is that theism is a reflection of what traditional religious believers believe. Unfortunately, there is a fundamental ambiguity in what Gaskin means by theism. In his glossary he defines theism as "belief in a single and eternal God who created all things and continues to sustain and work in the world". He criticises Rudolf Bultmann, Paul Tillich, John Robinson, Don Cupitt and myself, among others, for opposing theism and of not being faithful to what believers really believe. Gaskin warns his readers that such people usually return to theism or lose their faith. But it is only in his last chapter that Gaskin distinguishes between his glossary definition of theism and theism as represented by the metaphysical theories. He admits that the theism which is "a metaphysics of reality... is not a religion in itself". What, then, becomes of the glossary definition?

Gaskin answers opponents of philosophical theism by asserting the importance of the religious beliefs he outlines in his glossary definition. The whole issue, however, is whether these religious beliefs need the foundations metaphysical arguments are supposed to provide. Since Gaskin is hesitant about these "foundations", should not his hesitancy affect our reading of the book? On Gaskin's view, should not "I believe in God" or "I know that my redeemer liveth", or "I have a weakly reasonable belief in God and that I am inclined to think that on the whole the consequences of theism are better than those of atheism"? Would anyone recognize this as an account of the language of faith?

Stewart Sutherland, in his book, thinks that discussions which turn on appeals to what believers really believe tend to be arid. He is concerned to emphasize that religious belief is a mixed phenomenon. Some theological perspectives revise what other perspectives have advanced. He sees his own work as an example of such theological revisionism. For example, he cannot accept that God can properly be called an individual. What is to count as a theological revision is governed, according to Sutherland, by the criteria. First, he says that any theological revision must take place in the context of European culture. Would it not have been better to say that not anything can count as a religious change? Second, any revision must be compatible with our moral beliefs. This view seems to depend on too unified an account of morality. What of anti-religious moralities and different moral views on specific questions within the same religion?

Sutherland rejects, with impressive force grotesque theodicies which have appeared of late. On the other hand, in his desire to avoid a too easy appeal to mystery in face of evil, he misses the internal relations between mystery and the notion of God's will; the relations explored so profoundly by Simone Weil and which are essential to the character of certain religious moralities which are not founded on prior moral beliefs. Third, Sutherland says that a theological perspective must be comprehensive in accounting for our experience. The difficulty is that the comprehensiveness of a perspective sometimes marks its servility to a prevalent banality. Fourth, and fifth, theological perspectives must preserve insights which cannot be preserved in any other way and defend their claim to be true. Sutherland's conception of theology as "the articulation of the possible" is a valuable one, where by "possibilities" is meant, not hypotheses, but parameters of intelligibility which flourish within a form of life. Such flourishing need not exclude struggle and doubt.

Sutherland seems to think that providing theological revisions of previously held beliefs is at variance with the practices of those who think philosophy should leave everything where it is. This is a misunderstanding. If philosophers provide conceptual reminders of how things are in face of philosophical misunderstandings, Sutherland's revisions, if they are not bad philosophy in disguise, would be part of the "everything" philosophy leaves where it is. If reminders of the nature of faith need to be reminders of what is mixed and constantly revised, so be it, but the roles of philosophy and theology must not be confused.

For Gaskin, the provision of foundations for faith by epistemology is simply part of philosophy's proper employment. Sutherland would like to free himself from this conception of philosophy, but it keeps reasserting its hold on him. On the one hand, Sutherland emphasizes that to lose a theological perspective is to lose a conception of the world. On the other hand, he says that to lose a theological perspective is "to fail to see the world as it is... to have a limited ontology and a defective view of the truth". The desire for foundations for faith reasserts its hold on him.

"Back-to-foundationalism" characterizes more than one area of philosophy today. In philosophy of religion things are different. One can hardly go back to something the vast majority never abandoned.

force grotesque theodicies which have appeared of late. On the other hand, in his desire to avoid a too easy appeal to mystery in face of evil, he misses the internal relations between mystery and the notion of God's will; the relations explored so profoundly by Simone Weil and which are essential to the character of certain religious moralities which are not founded on prior moral beliefs. Third, Sutherland says that a theological perspective must be comprehensive in accounting for our experience. The difficulty is that the comprehensiveness of a perspective sometimes marks its servility to a prevalent banality. Fourth, and fifth, theological perspectives must preserve insights which cannot be preserved in any other way and defend their claim to be true. Sutherland's conception of theology as "the articulation of the possible" is a valuable one, where by "possibilities" is meant, not hypotheses, but parameters of intelligibility which flourish within a form of life. Such flourishing need not exclude struggle and doubt.

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D. Z. Phillips

D. Z. Phillips is professor of philosophy at University College, Swansea.



The Buddha meditating on his deathbed, a sixth-century rock carving from the caves of Ajanta in northern India. Taken from *The World of Buddhism* edited by Heinz Bechert and Richard Gombrich (Thames and Hudson, £20.00).

Critical method

Philosophy, History and the Sciences: selected critical essays
by Maurice Mandelbaum
Johns Hopkins University Press,
£28.50
ISBN 0 8018 3112 1

Covering four decades in the life of a prolific philosopher and scholar, this volume of essays is not a collection of disconnected pieces, but forms a unified whole. Its unity is partly due to some recurrent general themes, such as the rejection of relativism in all its method, namely the method of critical philosophy. As understood by Maurice Mandelbaum, critical philosophy like logical positivism and ordinary language philosophy tries to keep free from all metaphysics; but it differs from logical positivism in not restricting itself to inquiries into the logical structure of science and from ordinary language philosophy in not being content with conceptual analysis. Unlike them it

regards at least some results of the empirical sciences as relevant to the solution of philosophical problems.

In the first section, on the theory of knowledge, Mandelbaum argues against the Cartesian doctrine that science experience by itself cannot provide certain knowledge. A phenomenological inquiry leads him to the conclusion that in some cases perceptions manifest a distinctness and a coherence which reveal them as fully reliable. Since this reliability is independent of any theory, one must - he argues - reject the influential doctrine, held by Henri Poincaré, Pierre Duhem and many others, that conflicts between a theory and observed facts can be, and often are, effectively removed by reinterpreting the facts rather than by modifying the theory. Not surprisingly, Mandelbaum also rejects the even more radical views of B. L. that they, like all versions of relativism, are based on what he calls "the self-excepting fallacy". This is committed by anybody who makes a generalization that purports to hold of all persons but fails to apply it to himself.

In the next section, on the methodology of history, Mandelbaum takes up a position midway between those who regard the historical and the scientific method as essentially different and those who regard the two

methods as essentially the same. He holds on the one hand that the historian's task of describing particular events and sequences of events cannot be achieved without taking note of the general uniformities, the discovery of which is the main purpose of the sciences. And he holds on the other hand that the social scientists, who inquire into the working and development of societies, would not be able to do so without making use of the descriptions provided by historians.

In the third part of the volume, devoted to the methodology of psychology and the social sciences, he again departs from the mainstream of contemporary Anglo-American thought. For example, he rejects methodological individualism, according to which social psychology is the basic social science. His main reason for doing so is the difference in the subject matter of social psychology and sociology. As he sees these sciences, social psychology deals with practices, in particular rule-governed practices, the widely shared ways in which the individual members of a society behave; and sociology deals with the structure and function of societies. Since sociology, in order to achieve its aims, must take into account the size and density of a society's population, its natural resources and other factors which, while influencing social practices, are not reducible to them, sociology too cannot be reduced to social psychology. The highly instructive historical essays, which form the last section include an illuminating account of Darwin's religious development from an orthodox theism to what Mandelbaum describes as an undogmatic form of atheism.

Any work rich in philosophical ideas raises questions which it does not fully answer. Here it seems sufficient to pose two very general ones. The first concerns the demarcation between critical philosophy and metaphysics. The question arises because it is by no means obvious that the criteria for a satisfactory analysis or the scientific results relied upon by a critical philosopher are free from metaphysical assumptions. The second question concerns the distinction between an internally inconsistent relativism and a pluralism which exhibits a variety of the distinction is needed because its absence is likely to create, or to increase, the danger of condemning self-consistent pluralistic theses as instances of an internally inconsistent relativism.

Stephan Körner

Stephan Körner is emeritus professor of philosophy at the universities of Bristol and Yale.



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BOOKS

ENVIRONMENTAL SCIENCES

Global survey

The Nature of the Environment:
an advanced physical geography
by Andrew Goudie
Blackwell, £22.50 and £7.50
ISBN 0 631 13143 4 and 13144 2

Following the tradition he has already set in two earlier books, *Environmental Change* (second edition, 1982) and *The Human Impact: man's role in environmental change* (1981), Andrew Goudie, now professor of geography in the University of Oxford, surveys a broad range of material in a clear way, making effective use of illustrations and case-studies.

The problem with handling such a wide range of material across the globe is to establish the framework in which material is introduced. It is hardly possible to present everything in the "right" order, so that some ideas have to be mentioned in passing and developed elsewhere. Further, perhaps to capture the interest of the reader in synthesis, Goudie tackles a regional set of chapters arranged by four major world zones (polar regions, the mid-latitudes, deserts, the tropics), before embarking on most of the more detailed material. The exceptions are two introductory chapters describing the global tectonic framework, and the global pattern of climate.

The approach is quite effective, and many important topics are slotted into the four zonal chapters. Obviously, the description of zonal climate and vegetation is straightforward enough under this scheme, but it is also used to introduce a number of geomorphological topics, the chapter on the mid-latitudes covers the impact of climatic change (that is, the ice age and its mid-latitude effects: loess, dry valleys and tundra), and the chapter on the tropics includes discussion of coral reefs and weathering.

All this is most ingenious, but unless these sections are to become overloaded with such topics, some must be swept up in later, systematic chapters. Two of these deal with distinct geomorphological environments, mountains and the coast, and another covers the environments of cities. The remaining six cover aspects of the ecology of plants and animals, volcanoes and earthquakes, slopes, soils and weathering, the hydrological cycle, and rivers. Within these, other topics are fitted in: limestone processes and landforms within chemical weathering; air pollution, pesticides and the global warming effect.

Finding a particular topic within this structure requires use of the index. However, although this is perfectly acceptable, surely some useful points of comparison are lost. Thus, salt marshes are covered within coastal areas, whereas mangrove swamps and coral reefs are in the earlier chapter on the tropics; photochemical smog and acid rain are dealt with in the chapter on ecology, whereas the build-up of carbon dioxide in the atmosphere is covered in the chapter on the tropics, the excuse being the possible effect of removal of the tropical rain forest on carbon-dioxide levels - "in combination with the burning of fossil fuels", as Goudie charmingly puts it.

At times duplication occurs, not of itself a bad thing, though reference tends to be back rather than forward. Thus, weathering is introduced in more systematic fashion in chapter 12 (soils and weathering). Drainage density is first defined in the discussion of badlands in chapter five (the coastal deserts), and then again in chapter 14 (rivers). At least in this case the definitions are consistent, even if they are worded a little differently. More awkward is the initial definition of "hydraulic radius": "the area of water per unit of channel water contact", which can only make sense if you are aware of the correct definition given just two pages later. Given the complex structure of

the book, it might have been better to include forward references to definitions where necessary.

A recurrent theme in the book is natural hazard. In many chapters this forms an appreciable section, though at times narrowly focused. The chapter on the mid-latitudes contains a section on hazards in the British Isles, whereas that on the tropics has no room for more than a bare list of hazards. Overall, although this material does add to the value of the book, the photogenic nature of catastrophic slope processes and devastated bridges puts a little too much emphasis on the extreme event.

In his concluding chapter, Goudie extracts eight key themes, few of which are actually made much of in the course of the book. Thus, although "equifinality" might well have been introduced in the discussion of tectonics, it is left to a paragraph three pages from the end of the book. He does not return to issues of scale; and although he does successfully use different scales in the rest of the text, he makes no attempt to show how controlling variables may change with scale, nor much attempt to present the different scales of geological time which are so hard for the student to grasp and use.

The book is intended for "advanced courses in physical geography". How advanced is not indicated, but overall the usage seems to be as in *Advanced*. Indeed, although the book is more readable by being deprived of references, this makes it unsatisfactory

for use in first-year undergraduate courses, at least in any establishment which still assumes that its students will read widely and use the library. This is particularly true of the selective tables of data (for example, those on rates of coastal erosion, or of rates of infiltration in certain American states) - where only reference to the sources could clarify some very peculiar figures. The reading list allows general further reading, but more specific topics are impossible to pursue.

Climatologists or ecologists might find the book more successful than I do, as a geomorphologist. The landforms material here does not fit at all easily into the approach adopted. The same would be true of soils, were these not treated at a nominal level, with one piece on zonal classification (using American terminology) and another 200 pages later introducing little used (and clearly some very peculiar) soil-forming processes. Indeed, the only way landforms could have been handled in the same way as climate and vegetation would have been to adopt a continental climate-based approach; and this Goudie has not been prepared to do.

The blame for the lack of a geomorphology which might be integrated with the other material does not rest with the author. For all the detailed work on Quaternary changes or contemporary processes, geomorphologists have shied away from generalizing their material along global lines. Goudie does compound his problems

however, by introducing alternative explanations for features, and by exploring concepts which are not needed at this level. Thus, plate tectonics is unnecessarily prefaced by Alfred Wegener and drifting continents, and L. C. King is trotted out in historical sequence in a way that will amaze our continental colleagues. It is not so much a matter of surveying rival theories, as of presenting a homogeneous and satisfactory account at the level of generalization necessary in this book.

I was disappointed to find little (and this is left until late in the book) on rates of erosion, and altogether too few physical values. There is merit in quantifying global processes in terms of energy levels across all the fields covered in this book, and the interaction of process rates and geological time is fundamental to the appreciation of the evolution of the Earth's surface.

In a way, my reservations are summed up by the caption to the front-piece illustrating the Matterhorn. Mountains, we are told, are created by folding, faulting and volcanism. Why denudation not included in that list?

Keith Clayton

Keith Clayton is professor of environmental sciences at the University of East Anglia.



In some mountainous areas, glaciers are prone to surge at exceptional speeds. Glaciers that have this characteristic, such as the Svalbard Glacier in Alaska (above), have highly deformed moraines. From Andrew Goudie's *The Nature of the Environment*.

Potential disasters

Glacier Hazards

by Lance Tuftell

Longman, £5.95

ISBN 0 582 30065 7

Like its predecessor (on floods) in Longman's series *Topics in Applied Geography*, this slim volume closely examines the relationship between physical and human systems. Although Tuftell does not dispute that glaciers play only a minor role in natural hazard studies, he claims that their significance is underestimated, partly because most glaciers are currently in a recession phase, and included in teaching curricula. In view of the considerable academic interest in glacial geomorphology, this is paradoxical but reflects the general neglect of hazard studies in Advanced-level geography syllabuses. Such a neglect is lamentable, bearing in mind the expanding interest now shown at universities.

By a detailed examination of past records, Tuftell demonstrates how even slight perturbations can cause significant glacier fluctuations, with their accompanying threat to life and

property. He purposely avoids entering the controversy relating to the "greenhouse effect" on ice-sheet melting and also chooses not to examine the more local hazards faced by skiers and climbers in glacier environments. Instead, he describes the effects of glacier advances, glacier floods and ice avalanches on settlements and communications, and reassesses their economic impact and the different degrees of human adjustment to the problems. Considerably more than half the book is concerned with a review of historic glacier fluctuations. Tuftell first briefly discusses measurement techniques, ranging from geomorphology, through lichenometry and dendrochronology to the use of data abstracted from photographs and surveys of how glaciers threatened settlements, primarily in the Alps, Iceland and Norway, during the Little Ice Age (1550-1860). One of the most interesting chapters examines the economic effects of glacier fluctuations, in which the contributions of glacial meltwater to domestic water supply, irrigation and electricity generation are assessed. Glacier impacts on agriculture, forestry, communications, mining and tourism are also briefly investigated.

A separate chapter is devoted to the phenomenonology of glacier floods and ice avalanches, including the famous disasters of the 18th century

(France) flood of 1892 and the Huascarán (Peru) avalanches of 1962 and 1970. The three remaining chapters are devoted to a valuable case-study of the Valais canton of Switzerland chosen largely because of the wealth of existing documentation. People's perception of and response to glacier hazards are examined in detail, and a final chapter discusses future scenarios related to possible climatic fluctuations and/or changes in human activity. A final plea hopes that our growing awareness of the problems should be heeded by planners and translated into the decision-making process, with both scientist and planner appreciating that "a natural process which is of little importance to man at present might have the potential to become far more dangerous in the future".

This is a well written and carefully researched book, reasonably balanced in its treatment and possessing a valuable bibliography, including many references from French, German and Italian sources. Although its readability will be limited, it deserves to be on the bookshelf of all researchers who are devoting increasing time to studying the impact of natural hazards on man.

John Whitton

John Whitton is senior lecturer in Geography at the University of Reading.

BOOKS

ENVIRONMENTAL SCIENCES

Rustic charm

Rural Geography
by Michael Pacione
Harper & Row, £7.95
ISBN 0 06 31 8290 4

Once upon a time, geographers interested in rural areas were besotted with agriculture and its economic and landscape ramifications. In the postwar period this focus made rural geography appear like a shire-horse on a motorway, cooing rustic charm and bucolic nostalgia but representing an anachronistic pedestrian fable to be swept aside by the accelerating advances in academic and theoretical technology occurring in its urban and regional counterparts. There was a danger, therefore, that rural areas would acquire the status of green-shaded, cultural so-go areas perceived as mockingly suiting the twin processes of "modernization" and "urbanization", rather than as possessing any intrinsic value for geographic study.

A major turnaround from this position was heralded by the publication in 1972 of Hugh Clout's *Rural Geography: an introductory survey*; and during the ensuing period there has occurred a revival of Southern Baptist proportions. Clout demonstrated that rural landscape, land-use, economy, society and demography could neatly be packaged into a unit of study of equal legitimacy to the well established urban specialism. At the same time, public awareness of the "problems" of depopulation and declining services in remote areas, commuter housing

estates and planning deficiencies in peri-urban areas, and conflicts between recreation and conservation in all rural areas, began to attribute societal importance to countryside phenomena. The potent mixture of academic respectability, public interest and fashionable topicality has fostered an explosion of research and polemic, and in the 12 years since Clout's introductory survey the subject has expanded in all directions, with the result that his book now fits rural geography like clothes on the Incredible Hulk.

There has thus been a glaring need for a contemporary and comprehensive text which records progress to date and offers guidance for future directions in rural geographical study. Enter, stage right, Michael Pacione's book. In 20 action-packed chapters "each of which is designed to form the basis of a lecture or block of lectures depending on the depth of treatment required", he presents a comprehensive coverage of modern-day rural geography combining, with the instant tenacity of the human geographer, people-related topics such as settlement, demography, community, housing, employment and services, with land-related studies of agriculture, resource exploitation, environmental conservation and recreation. The blow-by-blow account is valuable for its all-embracing coverage; and it certainly fulfils the objective of creating a single text lecture course.

For the uninitiated, Pacione offers an extensive parcel of interesting material, demonstrating the marked multidisciplinary approach to rural studies which currently predominates, and expounding tried and tested concepts with clarity. For example, there are presumably many potential readers who are unaware of the socio-economic deprivation occurring (albeit often hidden away) within rural communities. The cumulative impacts of service losses, declining job opportunities and an escalating rural housing market are linked both with the trend of in-migration of the more affluent classes of the new rural "gentry" and with the failure of planning to secure

sufficient rural opportunities for disadvantaged low-income families in times of financial exigency in the public sector. There may also be those who have yet to be introduced to the conflicts between modernized agriculture and landscape conservation and the flames of debate on these issues which have been fanned by the bellows of the Wildlife and Countryside Act.

Even the uninitiated will be puzzled at the style of this text, which reads rather like a scrapbook, with each chapter consisting of a series of clippings as the author describes and neatly labels first the results of one researcher's study then another until the available material on the topic is exhausted and the next is begun. In seeking to report on such a wide range of work, he has had to sacrifice the luxuries of interesting analysis, interpretation and directive polemic which the reader might be forgiven for expecting. Those who recognize the originals on which the clippings were founded and on which the scrapbook depends for its thought-provoking content, will deeply regret the lack of opportunity for Pacione to rid himself of other researchers' thoughts and replace them with his own. This scrapbook style makes the text retrospective and permits little discussion on prospective issues such as explanations of why change occurs in rural areas, the constrained ability of planning to influence change, and the role of rural areas in post-industrial society.

Although Pacione's book offers little comment on rural futures, it is perhaps unfair to expect it to do so. His book informs and records for posterity a period of growth in scope and maturity for rural geography, but it adds little to our understanding of what that rural posterity might be like, or of how we might go about the task of studying it.

Paul Cloke

Paul Cloke is lecturer in geography at Saint David's University College, Lampeter, and editor of *Journal of Rural Studies*.

Lines of force

Reversals of the Earth's Magnetic Field
by J. A. Jacobs
Adam Hilger, £19.95
ISBN 0 85274 442 0

Although the existence of a magnetic field had been known for many centuries from the properties of lodestone, it was not until 1800 that William Gilbert, in one of the very first scientific treatises *De Magnete*, showed that this magnetic field had a source within the Earth itself. His conclusions were summarized in the classic statement "magnus magnes ipse est globus terrestris" (the Earth globe itself is a great magnet).

The most remarkable property of the Earth's magnetic field to emerge from studies during the past 70 years is its ability to reverse spontaneously so that the north pole inverts to the position of the south pole and vice versa; and it is with this property that Professor Jacobs' book is specifically concerned. In a comprehensive survey of a rapidly-expanding literature, Jacobs provides an eloquent summary of the evidence for reversals of the magnetic field and of the models which have been proposed to explain them. He also explores the possible links between those reversals and major events in geological history such as the evidence linking them to climatic changes and faunal extinctions.

Our knowledge of magnetic reversals comes largely from the study of the permanent magnetism recorded in rocks. Although Jacobs does not cover the history of research in detail he does document the major research of the 1950s and 1960s which endeavoured to establish whether this magnetism could reverse spontaneously and therefore explain the evidence for reversals without recourse to the re-magnetization of a source within the Earth which has reversed. The outcome of this work was to show that, even though a few rocks with rather peculiar properties can indeed reverse their magnetism and exhibit the phenomenon known as "self-reversal", the evidence that the Earth's magnetic field has reversed is quite unequivocal. The "reversal", however, the "some"

what enigmatic observation that some reversely-magnetized rocks are statistically more oxidized than normally-magnetized rocks.

The evidence from lava flows and marine sediments shows that the last definite reversal of the magnetic field occurred about 700,000 years ago. During the past few million years the magnetic field has spent about as much time in the normal (that is, present) configuration as in the reversed configuration. However, this has not always been the case: over long intervals of geological time the magnetic field has remained predominantly in one polarity or the other. It seems likely that changes in polarity bias and of frequency with which reversals have taken place are related to heat release from the Earth's interior. They are thus directly linked to large-scale surface events expressed as continental drift and plate tectonics.

It seems that during a reversal the intensity of the magnetic field declines as the magnetic poles move away from an average position near the rotation axis of the Earth and move into the opposite hemisphere; the intensity increases again as the magnetic poles approach the opposite geographic pole. This cycle lasts for perhaps 4,000-10,000 years; and even during the middle of it a small residual field remains. As this behaviour is crucial to our understanding of the nature of the magnetic field, much interest centres on the possibility that reversals, or at least large excursions away from the north and south geographic poles, may have taken place much more recently than 700,000 years ago. The evidence for these events comes largely from soft sediments in which the magnetic record is often disturbed and difficult to interpret. Jacobs summarizes this evidence in an impartial way and explores the possibility that excursions could represent reversals.

Why then do reversals occur? It is generally held that the Earth's magnetic field originates in convective motions in the liquid outer core of the Earth, which in turn cause electric currents, to flow and to produce some form of electromagnetic induction. The convection is motivated by the energy supplied from radioactive decay and phase changes, and the effect is maintained by an electroconvective force produced as the currents cut across the magnetic lines of force. It is, therefore, a dynamo response. The dynamo can be initiated by a number of laboratory

experiments which complexities can be introduced to cause the systems to reverse in an irregular way. In the longest and most technical chapter, Jacobs summarizes and assesses those models.

In his last chapter, Jacobs examines the possible links between the Earth's magnetic field, climate, and faunal extinctions. The most important correlation to emerge links excursions of the field during the past 400,000 years to periods of global cooling; the last four or five times when the Earth's orbit was at positions of maximum eccentricity also seem to coincide closely with those excursions. Although it is now recognized that reversals of the field are not by themselves capable of causing faunal extinctions, it has been known since 1975 that many organisms contain magnetic grains which they use to orientate themselves with respect to the ambient magnetic field. A reversal could direct such organisms away from their natural environment and thus affect their survival potential.

Although the geographical fraternity will comprise the main readership of this book, there are things here for the geologist, the geographer, the oceanographer and even the biologist. Furthermore, it is a credit to Jacobs' presentation that the layman, too, will not be out of his depth through much of the text.

J. D. A. Piper

J. D. A. Piper is reader in geophysics at the University of Liverpool.

New editions of some established texts have been published: a third edition of Peter Hall's *The World Cities* by Weldenfield and Nicholson at £12.95 and £6.95; a third edition of Norman J. Graves' *Geography in Education* at £5.95; a Heinemann Educational at £5.95; a third edition of Eric C. F. Bird's *Coasts: an introduction to coastal geomorphology* by Blackwell at £19.50 and £7.50; and a paperback edition of *Geomorphology of Europe*, edited by Clifford Embleton, by Macmillan at £17.50 (for a review of this latter, see *The Times*, 18th May, 1984).

An *Environment Bibliography*, free on application, will be available later this year, from Tony Wales, Wyn Dawson and Sons Ltd., 10-14 Macklin Street, London WC2.

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(307)

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CHICAGO

The University of Chicago Press
126 Buckingham Palace Road London SW1W 9SD

BOOKS

ENVIRONMENTAL SCIENCES

Strange beasts

Discoverers of the Lost World: an account of some of those who brought back to life South American mammals long buried in the abyss of time by George Gaylord Simpson
Yale University Press, £23.50
ISBN 0 300 03188 2

In the fifteenth century European explorers set out to discover a New World: that world of the Incas and of El Dorado yielded to the Conquistadors. Four centuries later their successors were intent on discovering a Lost World.

In southern Venezuela lie the great tepuis, isolated plateaus with vertical walls rising thousands of feet above the tropical jungle below. They have their own climate and are inhabited by species of plant and animal not found elsewhere. Some seventy years ago Sir Arthur Conan Doyle chose such a setting for his novel *The Lost World*, and he inhabited it with dinosaurs and toxicodons, animals long thought to be extinct. Unhappily, Conan Doyle's world remains fiction, but the *Lost World* with which this book is concerned is very real. Professor George Gaylord Simpson, the doyen of American palaeontologists, tells of the adventures of explorers who set out to unearth the bones of strange mammals that once roamed South America. The book is a sequel to his justly popular *Splendid Isolation* (Yale University Press, 1983), in which he described the evolution of mammalian faunas over the past 60 million years. America was isolated by seas and not by other land masses.

A century after Columbus, Jesuits in

Peru reported the occurrence of mastodont elephants; these were certainly extinct long before the Conquistadors ravaged the continent. In the late eighteenth century interest in fossil bones was sufficient for a skeleton to be excavated near Luján in what is now Argentina; it was sent to King Carlos III and mounted in the Royal Cabinet. The beast was a megatherium, a gigantic bipedal leaf-eating ground sloth; it was described in 1796 by the great French anatomist Georges Cuvier and is still to be seen in Madrid. In the same year Thomas Jefferson announced the discovery of a similar beast in Carolina, but being occupied at that time with his election to the Presidency of the United States, he asked a colleague to publish on the fossil.

In the early 1830s HMS Beagle was engaged on a hydrographic survey around the coasts of South America and Captain Fitzroy was wont to complain when the naturalist on board would return from an exploratory trip ashore with crates of fossil bones. But Darwin was adamant; they were dis-

coveries of the inhabitants of the lost world – the great tank-like glyptodonts, the camel-like macrauchenias, and the rhinoceros-like toxodonts. Darwin's discoveries opened our eyes to a whole, new world of strange and wonderful beasts.

The National Museum of Natural History in Buenos Aires now houses a great collection of fossil mammals and much of that collection was made by the remarkable Ameghino brothers, Florentino and Carlos, in the later decades of the nineteenth century. Carlos would set off to Patagonia for months at a time, living rough with the gauchos, and send back to his brother vast quantities of fossils; Florentino wrote thousands of pages on these (his collected works run to 24 thick volumes).

The brothers were great pioneer characters whom Simpson describes vividly (he knew Carlos in old age). Florentino fervently believed that all the world's mammals except man had originated in South America, and he didn't tolerate dissenters. But many

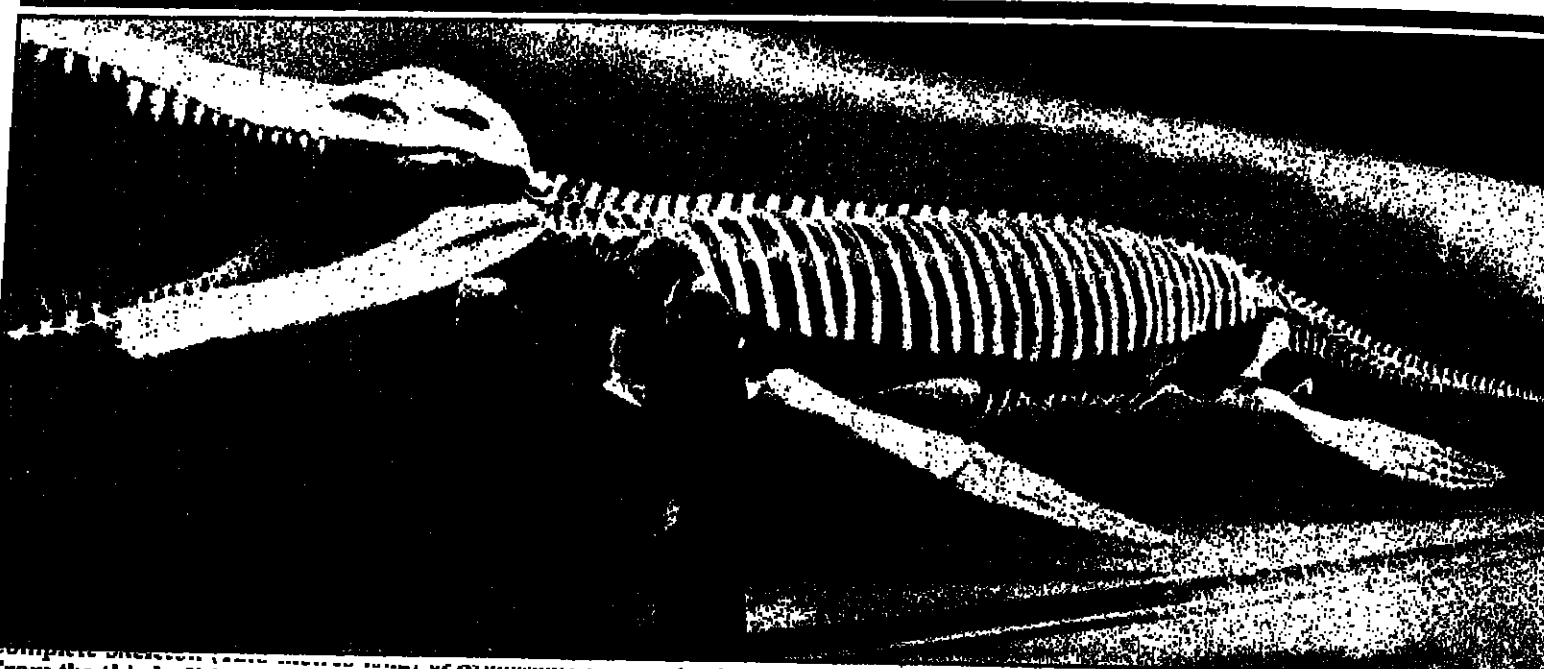
disagreed, and there were lively verbal feuds. This persuaded the Ameghinos to do more work, find more fossils, and write more papers. Such challenges often bring out the best (or worst) in scientists. Professor Simpson, however, has a well founded and sincere respect for these great palaeontologists.

Anyone who is prepared to brave the wastes of Patagonia hunting for fossils has to be a man of strong character. In later years, with mechanized transport, life becomes a little easier, but the pioneering spirit is still dominant. Several of the later discoverers came from the northern half of the New World, bringing their trophies back to adorn the museums in Princeton, Chicago and New York. Others came from the Old World, from France, Denmark and Spain. After Darwin, however, only one came from England and then only indirectly via Chicago, Bryan Patterson, whose father had hunted man-eating lions in Tsavo, hunted more ancient and stranger beasts in the

jungles of the Americas; and his vibrant and jovial character is faithfully portrayed by Professor Simpson. There is one major hiatus: Professor Simpson tells us nothing of his own very successful explorations and discoveries in the Lost World; but he has already written about these fifty years ago in a delightful volume entitled *Attending Marvels* (Chicago University Press, re-issued 1982). His account of the discoverers is factual and precise; he does not allow personal feelings to bias the record, but there is much to be read between the lines. Innumerable lessons are given on the dialects of South American Spanish, but if you want to follow the journeyings of the explorers, provide yourself with a map of the continent.

R. J. G. Savage

R. J. G. Savage is professor of vertebrate palaeontology at the University of Bristol.



From the third edition of Charles Leserson's *Ancient Australia: the story of its past geography and life*, revised by R. O. Brunnschweiler (Angus & Robertson, £20.00).

Oil reserves

Introduction to the Petroleum Geology of the North Sea
edited by K. W. Glennie
Blackwell Scientific, £28.50 and £15.50
ISBN 0 632 01267 6 and 01268 4

Based on notes from courses given under the sponsorship of the Joint Association of Exploration Courses UK (JAPEC), an organization sponsored and supported jointly by the Geological Society of London, the Petroleum Exploration Society of Great Britain and the department of geology at Imperial College, London, this valuable book on important aspects of North Sea geology will be of use, not only to specialists who possess first-hand experience of North Sea petroleum geology, but also interested laymen. All of its nine contributors are practitioners of the art of finding oil and gas in the various hydrocarbon provinces of the North Sea basins.

The book consists of three parts: a summary of exploration history and a review of the structural framework and prehistory of the North Sea; descriptive and stratigraphic accounts of Permian to Cenozoic rocks; and two review articles dealing with the source rocks for North Sea oil and gas and hydrocarbon plays – oil being the sets of circumstances which combine to create the necessary conditions for oil and gas accumulation.

Although there has recently been a plethora of information on the petroleum geology of the North Sea and the north-west European continental margin, much of it is in highly technical papers and publications. The JAPEC book will be most useful for courses, in that it provides summaries and generalizations. It is well illustrated, and some of the diagrams could be incorporated in school geography texts, which are particularly short on graphic North Sea data. The net result is a clearly-written account that covers a diverse range of topics. Some sections should be compulsory reading for politicians.

The debate in the 1970s about the reserves and resources of the various North Sea hydrocarbon provinces was dominated by a small group of statisticians who challenged and accused the professionals of deliberately playing down reserves; the professionals responded by saying that the statisticians were hopelessly short on geological and geophysical facts: what they regarded as outrageously high reserve numbers generated by the statisticians and their sacred computers had little to do, they said, with geological reality and sensible expectations. In terms of media coverage, the statisticians won; and in any case, the motivations of many of the multinationals were suspect. The last two chapters of the JAPEC book – on source rocks and hydrocarbon plays – demonstrate how naive the statisticians' models really were.

The chapter on source rocks contains some interesting comments on oil company and government views about how much oil and gas have been generated and trapped and about how much of this will ultimately be recoverable. For example, it is interesting to note, some ten years after the debate about reserves, that by using estimates of matured source rock and oil generation, and some highly sophisticated entrapment models (some of which are discussed) geologists can arrive at some large figures for reserves. Goff (1983), who then worked for British Petroleum, postulated that the trapped oil could total as much as 24 billion barrels (BBO) for a small part of the Viking province and the East Shetland basin, a figure that cannot be compared directly (the recoverable portion will be less) with the figures presented by Ziegler of Shell International (1978), who estimated that for the whole of the North Sea the technically recoverable reserves are about 23 BBO and with those presented by Fuller of Amoco (1982), who estimated that the recoverable resource of the Viking and Central fields is about 21 BBO. The substantial differences may be viewed in two ways: either the geochemically based reserve resource estimations are misleading or they indicate that the Shell and Amoco-based figures are gross underestimates.

Add to the discussion that the remaining recoverable reserves in pre-salt and future discoveries for British basins were estimated by the Department of Energy in Spring 1984, to be in the range 10.6–39.6 BBO, an amazing jump on the 1982 figures of 15.2 per cent at the bottom end of the range and of 24.9 per cent at the top end, then may well be that there is much more oil and gas to come from the ten or so North Sea basins, and from the 45 basins which extend from Nord Kapp to Western Approaches. Indeed, it may be some time before "the oil (and the gas) runs out". Introductory books such as this can be very stimulating, especially when they are written by working geoscientists and have non-specialist appeal.

Arthur Whiteman

Arthur Whiteman is professor of petroleum exploration studies at the University of Aberdeen.

Getting the drift

The Evolving Continents
(second edition)
by Brian F. Windley
Wiley, £25.00 and £9.95
ISBN 0 471 90376 0 and 90390 6

When seafloor spreading and plate tectonics burst upon the scene in the 1960s in the wake of the first convincing proof of continental drift, they were hailed as the principal elements of a revolution that was to provide the first globally-integrated view of the Earth's behaviour. The resulting upheaval was rightly seen as a key development in the progress of geology, the first basic philosophical shift since the subject had become a true science in the late eighteenth century. But for the study of the Earth sciences it was also a disturbing development in a quite different sense. Global tectonics is an earth-shaking model in which the continents are

inherently passive bodies reacting and interacting largely under the influence of forces exerted by moving oceanic lithosphere. The problem with this is that there is no longer any active ocean floor predating the breakup of the Pangaea super-continent only 200 million years ago, which means that more than 95 per cent of the Earth's history must be interpreted solely with reference to the effects observed on the passive components themselves. The difficult business of investigating continental evolution in the absence of the prime mover, but in the knowledge of what it may (or, just possibly, may not) have been, began earnestly in the early 1970s. By 1977, Brian F. Windley felt that a review of progress was required and hence produced the first edition of *The Evolving Continents*. It was both a good time and a bad time to do so – good, because such a rate that Earth scientists badly needed a coherent statement of the position reached, but also bad, for any attempt at synthesis was doomed to become outdated very rapidly.

And so it proved. The result is that the differences between Windley's first and second editions (though the two versions are of the same length) are extensive – so extensive, indeed, that they cannot be completely listed here. The new version of *The Evolving Continents* is virtually a new book and its predecessor, valuable though it has been, must now be discarded as misleading.

Almost all those parts of the earlier work that have not been eliminated have been severely reduced or extensively revised. There are new chapters or sections on a bewildering variety of topics, among which are the Himalayas, Late Proterozoic mobile belts, early active continental margins, basins from formations in greenstone belts, evaporites, early plate-tectonic settings, the structure of oceanic ridges, and suspect terranes. The most telling – and alarming – change of all, however, is that, of the original 1,500 references, no fewer than 1,250 have been deleted and replaced with the same number, dating from 1977 onwards.

The bare bones of the scientific story are there. Continental drift began to form about 3,800 million years ago and

had grown to perhaps 85 per cent of its present area and thickness by the end of the Archaean (2,500 million years ago). By the early Proterozoic (2,500–500 million years ago) the small orogenic belts in the light of recent theories of plate tectonics, an interpretation of Galapagos geology inconceivable 30 years ago but now firmly founded, for those who have vaguely thought of evolutionary processes as taking many millions of years, it must come as something of a shock to learn that the Galapagos Islands are probably only three to five million years old. Conditions probably evolutionary changes, leading not only to new species but to fundamentally new adaptive types, can be comparatively rapid.

This is a volume that can be recommended to anyone with an interest in biology or in conservation, and very highly to anyone with an interest in both subjects.

Thereafter, plate tectonic processes comparable to those of today began to evolve with similar results. Thus, for example, once large stable continental masses had developed, subduction and collision processes were able to produce orogenic effects along the continental margins. From the mid-Proterozoic, however, these same processes also attempted to disrupt the continental masses, a phenomenon that became particularly marked after about 1,000 million years ago and culminated in the break-up and dispersal of Pangaea.

Windley's heroic task has been to summarize the evidence and alternative interpretations relating to all this in the form of a new synthesis that is no less valuable than its predecessor.

Whether the third edition (in the 1990s?) will be as different from the second as the second is from the first remains to be seen. It almost certainly will be, for, despite the huge quantity of data now available, there are still few certainties of interpretation. In the meantime, we should all be grateful for Windley's guide through current complexities.

Peter J. Smith

Peter J. Smith is editor of "Open Earth" and reader in Earth sciences at the Open University.

The Institute of British Geographers: the first fifty years, a specially commissioned history of the institute written by Robert W. Steel, has been published by the IBG at £12.00.

A collection of essays on Themes in Progress, edited by J. A. Taylor and published by Croom Helm at £25.00 and £12.95.

BOOKS

ENVIRONMENTAL SCIENCES

Darwin's islands

Galapagos
edited by Roger Perry
Pergamon Press, £14.95
ISBN 0 08 027996 1

The history of the Galapagos Islands during the past 25 years is one of the success stories of conservation. Although the archipelago's unique place in the history of science – the result of Darwin's visit in 1835, which set in motion a train of thought culminating in his theory of evolution by natural selection – had long been recognized, the few scientific expeditions in the first half of the twentieth century to this arid cluster of volcanoes 600 miles off the Pacific coast of South America brought back accounts of devastation of the vegetation by introduced animals and over-exploitation of the giant tortoises and other native animals by settlers and visiting ships. Many concluded that it would be only a matter of time before the islands were irrevocably wrecked and the giant tortoises, from which they get their name, became extinct.

The situation was bleak in 1957, when the German biologist, Dr Irene Eibl-Eibesfeldt, made a survey on behalf of the International Union for the Conservation of Nature and Natural Resources (IUCN) and UN-ESCO, but his visit and visits by others soon after, coinciding with the centenary of the publication of *The Origin of Species* (1859), stimulated an international initiative which bore its first fruit early in the 1960s with the establishment of the Charles Darwin Research Station on Isla Santa Cruz (formerly Indefatigable Island; one of the English buccaners' names now sadly, but inevitably, superseded by the official Ecuadorian names).

After that, things happened fast. In particular, to which the islands belong, declared the greater part of the land area of the islands a national park, and set up an organization to administer it in collaboration with scientists from the Darwin Station. On the scientific side the volume of published research increased year by year, and it soon became clear that the Galapagos Islands are important not only for their historical association with Darwin but also in providing an unsurpassed "natural laboratory" for the study of evolutionary processes in action.

Meanwhile, the degradation of the fragile environment caused by introduced animals – goats, cats, pigs, cattle and others – continued, and was recognized as by far the most serious threat to the archipelago. For the first time, however, effective counter-measures began to be taken. For example, the seemingly impossible task (with the human and economic resources available) of eliminating goats has been achieved on several islands, and major regeneration of the natural vegetation is under way.

Finally, a totally new development – brought other potential dangers – was accepted that tourism was not only inevitable but, in promoting public awareness of the Galapagos, actually desirable; and it had the added advantage that it enabled Ecuador to profit economically from what otherwise would have been an expensive commitment. Studies had to be made, however, of ways to control tourism so that visitors could see the wildlife of the islands without damaging it.

Clearly, the Galapagos archipelago was a prime candidate for inclusion in the new series on *Key Environments* being published by Pergamon Press in association with IUCN. The collection of 19 chapters by 22 different authors, edited by Roger Perry, a former Director of the Charles Darwin Research Station, covers all the main aspects of the Galapagos environment: physical (climate, geology, and so on) as well as biotic. The aim has been to give the interested but not necessarily technically qualified reader an adequate idea of this unique ecosystem, backed by bibliographies that make it possible to go more deeply into any particular topic, and of the recent



Engraving of Nuneham Courtenay, Oxfordshire. From a new paperback edition of Dorothy Stroud's book on *Capability Brown* (Faber & Faber, £9.95).

Ladder of life

The Dawn of Animal Life: a biobiosphere study
by Martin F. Glaesner
Cambridge University Press, £25.00
ISBN 0 521 23507 3

Speculations on the origin and early evolution of the metazoa (multicellular animals) are still based largely on the comparative anatomy and embryology of living animal phyla. Ocean's razor and the old ladder of life principle have produced a reasonable animal groups, although this approach becomes more and more difficult as simpler and more primitive animals are considered. This has resulted in numerous conjectures as to the protist groups (unicellular animals) from which the metazoan stem group could have been derived, the structure and mode of life of the stem organisms, and how in turn they could have given rise to the major living phyla.

The metazoan stem could have been a solid or hollow organism derived from either a ciliate or flagellate colonial protist. And there are several plausible alternatives for the subse-

quent origin of the major living phyla – all of which depend on the relative timing and significance accorded to the radiation of the acolomates – and for the later origin and development of body symmetry, the coelom (the body cavity in which the gut is suspended), and segmentation. However, there has been relatively little discussion of the absolute timing of these hypothetical developments: first, because they took place in small (at most, millimetre-sized), soft-bodied organisms that were not likely to have been fossilized; and second, because the late Precambrian fossil record has been considered inadequate, especially when compared with the relative abundance of animal shells and hard parts in younger sediments.

Professor Glaesner's important book provides constraints for neontological (based on larval forms), phylogenetic reconstructions and evolutionary hypotheses. For example, it is now clear that the metazoan had a significant Precambrian history, with the stem group possibly developing as early as 1,000 million years ago. The Cnidaria (jellyfish, sea-anemones, corals) probably diverged first, followed by annelid worms and then the arthropods. In any ladder of life, the sponges occupy an intermediate rung between the protists and metazoa and are often thought of as an early experiment in multicellularity which led to a dead

end. From the fossil record it now looks as though this experiment did not begin until some time after the metazoan stem had given rise to the major living phyla.

Glaesner is an authority on the earliest animal fossils, in particular the impressions of soft-bodied metazoa which make up the Ediacarian faunas. It has always been his policy to select and study the best preserved material with the aim of arriving at a reconstruction of the living animal and suggesting plausible zoological relationships on the basis of structural homologies. This approach is much more painstaking than the popular practice of merely describing new taxa *in vacuo* on the basis of the structure preserved, but as can be seen here it pays dividends in the long run.

The book is a personal account of some aspects of the fossil record of late Precambrian metazoa and their phylogenetic implications, the emphasis throughout being firmly on the Ediacarian faunas. Though selective, Glaesner's account of their occurrence and interpretation is authoritative and timely. As several interpretations of fossil specimens and taxa have evolved over the years, it serves as a valuable review for specialists as well as a detailed introduction for more general readers. Other kinds of fossils receive comparatively little attention, which is fair enough as they have not yet contributed much to phylogenetic studies. Trace fossils, for example, have been described from many late Precambrian sequences, but mainly from a stratigraphic point of view. As Glaesner points out, little has been done to realize the biological potential of this record by distinguishing between open tunnels, mucus-encement burrows, different kinds of infilling, and the traces of sediment-ingesting fauna, selective detritus-feeders and filter-feeders.

Glaesner covers a lot of difficult ground: the known distribution of fossils, various interpretations of their structure, their taxonomic position, and the biological inferences which can be drawn. Topical questions such as the nature of the Precambrian/Cambrian transition and the development of hard parts are discussed succinctly, timescale and the known fossil record (based on larval forms), phylogenetic reconstructions and evolutionary hypotheses. For example, it is now clear that the metazoan had a significant Precambrian history, with the stem group possibly developing as early as 1,000 million years ago. The Cnidaria (jellyfish, sea-anemones, corals) probably diverged first, followed by annelid worms and then the arthropods. In any ladder of life, the sponges occupy an intermediate rung between the protists and metazoa and are often thought of as an early experiment in multicellularity which led to a dead

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C. J. Peat

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Hills and vales

Place-Names in the Landscape
by Margaret Gelling
Dent, £15.00
ISBN 0 460 04380 3

The landscape of Britain is a complex palimpsest of cultural features superimposed on a natural environment which has altered unevenly in response to both physical as well as human changes since prehistoric times. Margaret Gelling's carefully researched treatise will be a compulsory source of reference for those interested in the past and present characteristics of the landscape recorded in place-names and on the intense that topography has had on settlement pattern and etymology during the Anglo-Saxon period.

Many will ask what this volume adds to knowledge beyond that contained in Ekwall's *Dictionary of English Place Names* (fourth edition, Clarendon Press, 1960) and the (incomplete and in some instances outdated) County Surveys of the English Place Names Society to which in both cases innumerable references are made. Answers will focus on at least two points. First is the emphasis on the role of topography and habitat in place names; an aspect which seemingly has been underrated by earlier etymological analyses, especially pre-1970. Second is the attempt by Gelling to organize her information around themes. Thus, after an introduction

setting out the rationale of investigating the often subtle topographical vocabulary of the early English, the author proceeds through chapters dealing successively with rivers, springs, pools and lakes; marsh, moor and floodplain; river-crossings and landing places; roads and tracks; valleys and remote places; hills, slopes and ridges; trees, forests, woods and clearings; and finally ploughland and pasture. This approach enables Gelling to make critical analyses on a national rather than the more restrictive regional level.

It means also that settlements alphabetically distant but geographically and topographically close can be examined together. For example, located just south of the Tees estuary in north-east England, Redcar and Marske are places which have expanded enormously due to regional industrialization and population growth since the nineteenth century. Development of the original coastal sites and earlier centuries to agriculture over the moor and recently to urban, industrial or recreational uses defies any reconstruction of the landscape which might have attracted the first Anglo-Saxon families. Gelling's text informs us that "kerr" is a Middle English derivative from the Old Norse "kjar" and was used to describe "a marsh, especially one overgrown by brushwood" and that Redcar is a hybrid name with Old English "thred" (reed) as the first element. Some two miles down the coast Marske derives from the Old English "marisc" (marsh). An attractive feature of the book is that access to these translations is within the same section (in this case, marshes).

They bear no relationship to the modern environment of that area, but their clear relevance to the past is manifest when periodic erosion of beach sands exposes areas of peat and wood remains which once part of an extensive coastal wetland progressively lost under a rising sea-level and land development.

It is unfortunate that the author rarely refers to such physical evidence to support some of the inferred links between topography and the etymology of place names which linguistically are dealt with so competently. Consultation with a geomorphologist or physical geographer testifies to a standard physical application of "ric" in describing a particularly straight or narrow natural ridge in Eskrigg and Wheldrake, south east of York, is actually associated with a well-defined glacial moraine left by retreating ice some 16,000 years ago. It is much more than "a narrow ridge formed by the 50-foot contour".

Speculation on the ability of the early English settlers to identify such special landmarks may be unfounded, but separate recognition underlines a remarkable sensitivity, on the part of Anglo-Saxon and Scandinavian settlers, to variations in their physical environment. Gelling's research will be a further asset to those engaged in the reconstruction of early landscapes. The author does not pretend to know all life interpretive answers and sets out to encourage further fieldwork at local scales which might inspire many tentative conclusions and shed light on areas where full explanations are still lacking. There is much to stimulate such activity.

A final (perhaps mischievous) thought, however, is that it would be an unfortunate circumstance if at times our ancestral settlers imported names for sentimental reasons rather than to describe the new landscape in much the same way that a Tyke called to his home "The Dales".

This fascinating compilation and analysis will expose to students of landscape history, English and cultural geography, a remarkable sensitivity, on the part of Anglo-Saxon and Scandinavian settlers, to variations in their physical environment. Gelling's research will be a further asset to those engaged in the reconstruction of early landscapes. The author does not pretend to know all life interpretive answers and sets out to encourage further fieldwork at local scales which might inspire many tentative conclusions and shed light on areas where full explanations are still lacking. There is much to stimulate such activity.

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Edward Maltby

Edward Maltby is lecturer in geography at the University of Exeter.

United Kingdom (applicant) should be sent not later than 31 October 1984 quoting reference 1719/A.

Universities continued

UNIVERSITY OF ZIMBABWE

Applications are invited for Professorships in the following Departments:

Community Medicine: Applicants should be medical practitioners with higher qualifications in Community Medicine and Public Health eligible for registration with the Health Professions Council of Zimbabwe as specialists in Community Medicine.

Psychology: Applicants should have a sustained record of international excellence in their specialty area. The specialty area is open, but preference will be given to applicants with cross-cultural teaching and research experience.

Accountancy: Applicants should have a minimum of a Master's degree in Accountancy as well as senior membership of a recognised professional accountancy body. The above should be supported by a sustained publication record as well as several years of university teaching experience.

Applications are invited for Lecturerships/Senior Lecturerships/Associate Professorships in the following Departments:

Accountancy (5 posts): Applicants must hold a senior degree in Accountancy and membership of a recognised professional accountancy body. Candidates for the posts of Senior Lecturer and Associate Professor should, in addition, show an acceptable record of publications.

Medicine: Applicants must have a degree in general medicine with an interest in a specialty.

Land Management:

Post A: Agricultural Economics: Applicants should have broad experience within Agricultural Economics. A background in Quantitative Analysis is desirable. Areas of specialisation include Agricultural Development, Economics, Micro- and Macro-economics, Agricultural Policy and Farm Management.

Post B: Soil Fertility: Applicants should have a PhD in Soil Science specialising in Soil Fertility or a Master's degree with at least three years' relevant working experience. A strong background in Soil Chemistry or Soil Microbiology will be an advantage.

Psychology: Applicants should be psychologists with a strong experimental background, who will teach Industrial Psychology within the proposed MSc Occupations Psychology degree and relevant courses in the undergraduate programme.

English:

Post A: Third World Literature and the Literature of the African Diaspora: Applicants should have expertise in Third World literature and should be in a position to teach Afro-Caribbean literature at both undergraduate and postgraduate levels. Some knowledge of Latin American literature would be an added advantage.

Post B: English as a Second Language: Applicants should be specialists in Applied Linguistics with special reference to English as a Second Language. A special interest in the Linguistics of Communication would be an advantage.

Mechanical Engineering: Applicants should have a good honours degree, preferably a higher degree in Mechanical Engineering, and they should be competent to teach one or more of the following subjects: Applied Mechanics, Dynamics and Engineering Drawing, Solid Mechanics and Materials.

African Languages and Literature: Applicants should have a good degree of Ndebele. Apart from a good training in Ndebele language and literature, the applicants should be well versed in Ndebele culture and the different genres of its oral literature, as well as have an ability to research, interpret and expound traditional Ndebele thought in its literary expression.

Nursing Science: Applicants should have a degree in Nursing Science (preferably at Master's or Doctoral level with not less than five years' experience, preferably in Africa. Proven research ability demonstrated by publications in appropriate journals.

Salary Scales:

(Non-Medical)
Lecturer: £22,100-£24,000-£26,000-£28,000-£30,000-£32,000-£34,000-£36,000-£38,000-£40,000-£42,000-£44,000-£46,000-£48,000-£50,000-£52,000-£54,000-£56,000-£58,000-£60,000-£62,000-£64,000-£66,000-£68,000-£70,000-£72,000-£74,000-£76,000-£78,000-£80,000-£82,000-£84,000-£86,000-£88,000-£90,000-£92,000-£94,000-£96,000-£98,000-£100,000-£102,000-£104,000-£106,000-£108,000-£110,000-£112,000-£114,000-£116,000-£118,000-£120,000-£122,000-£124,000-£126,000-£128,000-£130,000-£132,000-£134,000-£136,000-£138,000-£140,000-£142,000-£144,000-£146,000-£148,000-£150,000-£152,000-£154,000-£156,000-£158,000-£160,000-£162,000-£164,000-£166,000-£168,000-£170,000-£172,000-£174,000-£176,000-£178,000-£180,000-£182,000-£184,000-£186,000-£188,000-£190,000-£192,000-£194,000-£196,000-£198,000-£200,000-£202,000-£204,000-£206,000-£208,000-£210,000-£212,000-£214,000-£216,000-£218,000-£220,000-£222,000-£224,000-£226,000-£228,000-£230,000-£232,000-£234,000-£236,000-£238,000-£240,000-£242,000-£244,000-£246,000-£248,000-£250,000-£252,000-£254,000-£256,000-£258,000-£260,000-£262,000-£264,000-£266,000-£268,000-£270,000-£272,000-£274,000-£276,000-£278,000-£280,000-£282,000-£284,000-£286,000-£288,000-£290,000-£292,000-£294,000-£296,000-£298,000-£300,000-£302,000-£304,000-£306,000-£308,000-£310,000-£312,000-£314,000-£316,000-£318,000-£320,000-£322,000-£324,000-£326,000-£328,000-£330,000-£332,000-£334,000-£336,000-£338,000-£340,000-£342,000-£344,000-£346,000-£348,000-£350,000-£352,000-£354,000-£356,000-£358,000-£360,000-£362,000-£364,000-£366,000-£368,000-£370,000-£372,000-£374,000-£376,000-£378,000-£380,000-£382,000-£384,000-£386,000-£388,000-£390,000-£392,000-£394,000-£396,000-£398,000-£400,000-£402,000-£404,000-£406,000-£408,000-£410,000-£412,000-£414,000-£416,000-£418,000-£420,000-£422,000-£424,000-£426,000-£428,000-£430,000-£432,000-£434,000-£436,000-£438,000-£440,000-£442,000-£444,000-£446,000-£448,000-£450,000-£452,000-£454,000-£456,000-£458,000-£460,000-£462,000-£464,000-£466,000-£468,000-£470,000-£472,000-£474,000-£476,000-£478,000-£480,000-£482,000-£484,000-£486,000-£488,000-£490,000-£492,000-£494,000-£496,000-£498,000-£500,000-£502,000-£504,000-£506,000-£508,000-£510,000-£512,000-£514,000-£516,000-£518,000-£520,000-£522,000-£524,000-£526,000-£528,000-£530,000-£532,000-£534,000-£536,000-£538,000-£540,000-£542,000-£544,000-£546,000-£548,000-£550,000-£552,000-£554,000-£556,000-£558,000-£560,000-£562,000-£564,000-£566,000-£568,000-£570,000-£572,000-£574,000-£576,000-£578,000-£580,000-£582,000-£584,000-£586,000-£588,000-£590,000-£592,000-£594,000-£596,000-£598,000-£600,000-£602,000-£604,000-£606,000-£608,000-£610,000-£612,000-£614,000-£616,000-£618,000-£620,000-£622,000-£624,000-£626,000-£628,000-£630,000-£632,000-£634,000-£636,000-£638,000-£640,000-£642,000-£644,000-£646,000-£648,000-£650,000-£652,000-£654,000-£656,000-£658,000-£660,000-£662,000-£664,000-£666,000-£668,000-£670,000-£672,000-£674,000-£676,000-£678,000-£680,000-£682,000-£684,000-£686,000-£688,000-£690,000-£692,000-£694,000-£696,000-£698,000-£700,000-£702,000-£704,000-£706,000-£708,000-£710,000-£712,000-£714,000-£716,000-£718,000-£720,000-£722,000-£724,000-£726,000-£728,000-£730,000-£732,000-£734,000-£736,000-£738,000-£740,000-£742,000-£744,000-£746,000-£748,000-£750,000-£752,000-£754,000-£756,000-£758,000-£760,000-£762,000-£764,000-£766,000-£768,000-£770,000-£772,000-£774,000-£776,000-£778,000-£780,000-£782,000-£784,000-£786,000-£788,000-£790,000-£792,000-£794,000-£796,000-£798,000-£800,000-£802,000-£804,000-£806,000-£808,000-£810,000-£812,000-£814,000-£816,000-£818,000-£820,000-£822,000-£824,000-£826,000-£828,000-£830,000-£832,000-£834,000-£836,000-£838,000-£840,000-£842,000-£844,000-£846,000-£848,000-£850,000-£852,000-£854,000-£856,000-£858,000-£860,000-£862,000-£864,000-£866,000-£868,000-£870,000-£872,000-£874,000-£876,000-£878,000-£880,000-£882,000-£884,000-£886,000-£888,000-£890,000-£892,000-£894,000-£896,000-£898,000-£900,000-£902,000-£904,000-£906,000-£908,000-£910,000-£912,000-£914,000-£916,000-£918,000-£920,000-£922,000-£924,000-£926,000-£928,000-£930,000-£932,000-£934,000-£936,000-£938,000-£940,000-£942,000-£944,000-£946,000-£948,000-£950,000-£952,000-£954,000-£956,000-£958,000-£960,000-£962,000-£964,000-£966,000-£968,000-£970,000-£972,000-£974,000-£976,000-£978,000-£980,000-£982,000-£984,000-£986,000-£988,000-£990,000-£992,000-£994,000-£996,000-£998,000-£1,000,000-£1,002,000-£1,004,000-£1,006,000-£1,008,000-£1,010,000-£1,012,000-£1,014,000-£1,016,000-£1,018,000-£1,020,000-£1,022,000-£1,024,000-£1,026,000-£1,028,000-£1,030,000-£1,032,000-£1,034,000-£1,036,000-£1,038,000-£1,040,000-£1,042,000-£1,044,000-£1,046,000-£1,048,000-£1,050,000-£1,052,000-£1,054,000-£1,056,000-£1,058,000-£1,060,000-£1,062,000-£1,064,000-£1,066,000-£1,068,000-£1,070,000-£1,072,000-£1,074,000-£1,076,000-£1,078,000-£1,080,000-£1,082,000-£1,084,000-£1,086,000-£1,088,000-£1,090,000-£1,092,000-£1,094,000-£1,096,000-£1,098,000-£1,100,000-£1,102,000-£1,104,000-£1,106,000-£1,108,000-£1,110,000-£1,112,000-£1,114,000-£1,116,000-£1,118,000-£1,120,000-£1,122,000-£1,124,000-£1,126,000-£1,128,000-£1,130,000-£1,132,000-£1,134,000-£1,136,000-£1,138,000-£1,140,000-£1,142,000-£1,144,000-£1,146,000-£1,148,000-£1,150,000-£1,152,000-£1,154,000-£1,156,000-£1,158,000-£1,160,000-£1,162,000-£1,164,000-£1,166,000-£1,168,000-£1,170,000-£1,172,000-£1,174,000-£1,176,000-£1,178,000-£1,180,000-£1,182,000-£1,184,000-£1,186,000-£1,188,000-£1,190,000-£1,192,000-£1,194,000-£1,196,000-£1,198,000-£1,200,000-£1,202,000-£1,204,000-£1,206,000-£1,208,000-£1,210,000-£1,212,000-£1,214,000-£1,216,000-£1,218,000-£1,220,000-£1,222,000-£1,224,000-£1,226,000-£1,228,000-£1,230,000-£1,232,000-£1,234,000-£1,236,000-£1,238,000-£1,240,000-£1,242,000-£1,244,000-£1,246,000-£1,248,000-£1,250,000-£1,252,000-£1,254,000-£1,256,000-£1,258,000-£1,260,000-£1,262,000-£1,264,000-£1,266,000-£1,268,000-£1,270,000-£1,272,000-£1,274,000-£1,276,000-£1,278,000-£1,280,000-£1,282,000-£1,284,000-£1,286,000-£1,288,000-£1,290,000-£1,292,000-£1,294,000-£1,296,000-£1,298,000-£1,300,000-£1,302,000-£1,304,000-£1,306,000-£1,308,000-£1,310,000-£1,312,000-£1,314,000-£1,316,000-£1,318,000-£1,320,000-£1,322,000-£1,324,000-£1,326,000-£1,328,000-£1,330,000-£1,332,000-£1,334,000-£1,336,000-£1,338,000-£1,340,000-£1,342,000-£1,344,000-£1,346,000-£1,348,000-£1,350,000-£1,352,000-£1,354,000-£1,356,000-£1,358,000-£1,360,000-£1,362,000-£1,364,000-£1,366,000-£1,368,000-£1,370,000-£1,372,000-£1,374,000-£1,376,000-£1,378,000-£1,380,000-£1,382,000-£1,384,000-£1,386,000-£1,388,000-£1,390,000-£1,392,000-£1,394,000-£1,396,000-£1,398,000-£1,400,000-£1,402,000-£1,404,000-£1,406,000-£1,408,000-£1,410,000-£1,412,000-£1,414,000-£1,416,000-£1,418,000-£1,420,000-£1,422,000-£1,424,000-£1,426,000-£1,428,000-£1,430,000-£1,432,000-£1,434,000-£1,436,000-£1,438,000-£1,440,000-£1,442,000-£1,444,000-£1,446,000-£1,448,000-£1,450,000-£1,452,000-£1,454,000-£1,456,000-£1,458,000-£1,460,000-£1,462,000-£1,464,000-£1,466,000-£1,468,000-£1,470,000-£1,472,000-£1,474,000-£1,476,000-£1,478,000-£1,480,000-£1,482,000-£1,484,000-£1,486,000-£1,488,000-£1,490,000-£1,492,000-£1,494,000-£1,496,000-£1,498,000-£1,500,000-£1,502,000-£1,504,000-£1,506,000-£1,508,000-£1,510,000-£1,512,000-£1,514,000-£1,516,000-£1,518,000-£1,520,000-£1,522,000-£1,524,000-£1,526,000-£1,528,000-£1,530,000-£1,532,000-£1,534,000-£1,536,000-£1,538,000-£1,540,000-£1,542,000-£1,544,000-£1,546,000-£1,548,000-£1,550,000-£1,552,000-£1,554,000-£1,556,000-£1,558,000-£1,560,000-£1,562,000-£1,564,000-£1,566,000-£1,568,000-£1,570,000-£1,572,000-£1,574,000-£1,576,000-£1,578,000-£1,580,000-£1,582,000-£1,584,000-£1,586,000-£1,588,000-£1,590,000-£1,592,000-£1,594,000-£1,596,000-£1,598,000-£1,600,000-£1,602,000-£1,604,000-£1,606,000-£1,608,000-£1,610,000-£1,612,000-£1,614,000-£1,616,000-£1,618,000-£1,620,000-£1,622,000-£1,624,000-£1,626,000-£1,628,000-£1,630,000-£1,632,000-£1,634,000-£1,636,000-£1,638,000-£1,640,000-£1,642,000-£1,644,000-£1,646,000-£1,648,000-£1,650,000-£1,652,000-£1,654,000-£1,656,000-£1,658,000-£1,660,000-£1,662,000-£1,664,000-£1,666,000-£1,668,000-£1,670,000-£1,672,000-£1,674,000-£1,676,000-£1,678,000-£1,680,000-£1,682,000-£1,684,000-£1,686,000-£1,688,000-£1,690,000-£1,692,000-£1,694,000-£1,696,000-£1,698,000-£1,700,000-£1,702,000-£1,704,000-£1,706,000-£1,708,000-£1,710,000-£1,712,000-£1,714,000-£1,716,000-£1,718,000-£1,720,000-£1,722,000-£1,724,000-£1,726,000-£1,728,000-£1,730,000-£1,732,000-£1,734,000-£1,736,000-£1,738,000-£1,740,000-£1,742,000-£1,744,000-£1,746,000-£1,748,000-£1,750,000-£1,752,000-£1,754,000-£1,756,000-£1,758,000-£1,760,000-£1,762,000-£1,764,000-£1,766,000-£1,768,000-£1,770,000-£1,772,000-£1,774,000-£1,776,000-£1,778,000-£1,780,000-£1,782,000-£1,784,000-£1,786,000-£1,788,000-£1,790,000-£1,792,000-£1,794,000-£1,796,000-£1,798,000-£1,800,000-£1,802,000-£1,804,000-£1,806,000-£1,808,000-£1,810,000-£1,812,000-£1,814,000-£1,816,000-£1,818,000-£1,820,000-£1,822,000-£1,824,000-£1,826,000-£1,828,000-£1,830,000-£1,832,000-£1,834,000-£1,836,000-£1,838,000-£1,840,000-£1,842,000-£1,844,000-£1,846,000-£1,848,000-£1,850,000-£1,852,000-£1,854,000-£1,856,000-£1,858,000-£1,860,000-£1,862,000-£1,864,000-£1,866,000-£1,868,000-£1,870,000-£1,872,000-£1,874,000-£1,876,000-£1,878,000-£1,880,000-£1,882,000-£1,884,000-£1,886,000-£1,888,000-£1,890,000-£1,892,000-£1,894,000-£1,896,000-£1,898,000-£1,900,000-£1,902,000-£1,904,000-£1,906,000-£1,908,000-£1,910,000-£1,912,000-£1,914,000-£1,916,000-£1,918,000-£1,920,000-£1,922,000-£1,924,000-£1,926,000-£1,928,000-£1,930,000-£1,932,000-£1,934,000-£1,936,000-£1,938,000-£1,940,000-£1,942,000-£1,944,000-£1,946,000-£1,948,000-£1,950,000-£1,952,000-£1,954,000-£1,956,000-£1,958,000-£1,960,000-£1,962,000-£1,964,000-£1,966,000-£1,968,000-£1,970,000-£1,972,000-£1,974,000-£1,976,000-£1,978,000-£1,980,000-£1,982,000-£1,984,000-£1,986,000-£1,988,000-£1,990,000-£1,992,000-£1,994,000-£1,996,000-£1,998,000-£2,000,000-£2,002,000-£2,004,000-£2,006,000-£2,008,000-£2,010,000-£2,012,000-£2,014,000-£2,016,000-£2,018,000-£2,020,000-£2,022,000-£2,024,000-£2,026,000-£2,028,000-£2,030,000-£2,032,000-£2,034,000-£2,036,000-£2,038,000-£2,040,000-£2,042,000-£2,044,000-£2,046,000-£2,048,000-£2,050,000-£2,052,000-£2,054,000-£2,056,000-£2,058,000-£2,060,000-£2,062,000-£2,064,000-£2,066,000-£2,068,000-£2,070,000-£2,072,000-£2,074,000-£2,076,000-£2,078,000-£2,080,000-£2,082,000-£2,084,000-£2,086,000-£2,088,000-£2,090,000-£2,092,000-£2,094,000-£2,096,000-£2,098,000-£2,100,000-£2,102,000-£2,104,000-£2,106,000-£2,108,000-£2,110,000-£2,112,000-£2,114,000-£2,116,000-£2,118,000-£2,120,000-£2,122,000-£2,124,000-£2,126,000-£2,128,000-£2,130,000-£2,132,000-£2,134,000-£2,136,000-£2,138,000-£2,140,000-£2,142,000-£2,144,000-£2,146,000-£2,148,000-£2,150,000-£2,152,000-£2,154,000-£2,156,000-£2,158,000-£2,160,000-£2,162,000-£2,164,000-£2,166,000-£2,168,0

